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OFFICE OF CAMPUS PLANNING & DESIGN

October 2008

Final
Initial Study
Mitigated
Negative Declaration

SCH# 2008061145
Lagoon Restoration
Project

University of California
Santa Barbara

UNIVERSITY OF CALIFORNIA
SANTA BARBARA

Lagoon Restoration Project

UCSB Final
Initial Study & Proposed Mitigated Negative Declaration

Prepared For
UCSB Office of Campus Planning & Design

Prepared By
Condor Environmental Planning Services, Inc.

Exhibit 3a - Mitigated Negative Declaration

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1.0 INTRODUCTION

Project Overview

The Campus Lagoon Management Area encompasses about 94 acres, some of which is designated as an Environmentally Sensitive Habitat Area (UCSB 1990). The Lagoon Restoration project site encompasses approximately 32 of the 94 acres in the Lagoon Management Area on the UC Santa Barbara Main Campus.

The Campus Lagoon Management Area is under the stewardship of the University of California, Santa Barbara (UC Santa Barbara) Cheadle Center for Biodiversity & Ecological Restoration (CCBER). In 2005, CCBER began implementing a grant from the Coastal Conservancy to define the details of several action items of the Management Plan for the Campus Lagoon, *referred to herein as "Lagoon Management Plan"* (Jones and Stokes 1999). The Lagoon Management Plan (1999) was required as a condition of approval from the California Coastal Commission (CCC) of a previous LRDP Amendment related to the UCen Expansion in 1992.

Lagoon Management Plan

In 1992, the LRDP was amended to allow the University Center expansion project to extend into former Parking Lot 8 instead of Storke Plaza. The CCC approval of the amendment carried conditions that required, among other things, landscaping the edge of the lagoon near the University Center to essentially create salt marsh and brackish marsh wetland habitats. The CCC also required UCSB to "submit a Campus Lagoon Wetland Management Plan as an amendment to the LRDP with policies for protection, enhancement, restoration, and public interpretation and access for the Campus Lagoon" (UCSB 1990 LRDP policy 30240.[b]10).

The environmental analysis for the Campus Lagoon Management Plan was tiered from the University of California, Santa Barbara, LRDP 1990 Environmental Impact Report (EIR). Mitigation measures from the LRDP EIR were incorporated into a tiered Initial Study. The CCC approved the Lagoon Management Plan in June 1999.

The project defined by this initial study would implement habitat management, public access improvements, and educational objectives that are required (as a CCC condition of approval) or recommended by the Lagoon Management Plan.

The purpose of the Lagoon Management Plan is to guide the management of the Campus Lagoon and its surrounding environment in a manner that protects, enhances, and restores the area and continues to provide public access and education opportunities. The Lagoon Management Plan identifies management objectives and actions that will specifically implement LRDP coastal policies and LRDP EIR mitigation measures. The Lagoon Management Plan identifies specific management programs and actions for: erosion, hydrology, water quality, vegetation and habitat improvements (back dune swales, wetlands), public uses/access, cultural resources, and aesthetics.
The Management Plan states that:

> "The three priorities for the [lagoon area] are:
>
> 1) Restoration of natural vegetation on dunes, Lagoon Island and Campus Point mesa;
> 2) Creation of vernal pool sites on the Lagoon Island mesa; and
> 3) Restoration of brackish habitat values for the Campus Lagoon.

The proposed project evaluated in the present CEQA document would accomplish significant portions of these priorities by implementing restoration of multiple habitats, public access improvements, and educational opportunities. The proposed project is detailed in Section 3.0.

Since the mid 1990s the following habitat restoration projects which were initiated as part of the implementation of the Lagoon Management Plan: Some restoration projects in the Lagoon area were initiated prior to the approval of the Lagoon Management Plan and are associated with mitigation from other campus projects such as the UCen expansion. Environmental documentation has been prepared individually for other projects and submitted to the Coastal Commission for approval.

1. Creation of 94,800 square feet of salt marsh and shorebird shallow water habitat adjacent to UCen and Commencement Green as part of mitigation for UCen encroachment into 100 ft. lagoon buffer (1995-1996)
2. Restoration of willow woodland and coastal sage scrub on North slopes adjacent to UCen, Ortega Dining and San Nicolas Dorm (lower 1/3 of slope) (1996-1997)
3. Creation of oak woodland and coastal sage scrub habitat along western shore of lagoon "Lagoon Park" as Phase 1 of the Manzanita Village Restoration Project (1999-2000)
4. Restoration of one-acre of coastal dune habitat at the East Depression by CCBER (as MSE and Restoration Class 186) (2001)
5. Restoration of coastal sage scrub and salt marsh habitat at the Quarry site (2002)
6. Restoration of "Zone 1" – lagoon- end of the Manzanita Village bioswale, coastal sage scrub bluff and Manzanita stairway (2002-2004)
7. Approximately 997 coast live oak (*Quercus agrifolia*) seedlings were planted along north facing slopes of Lagoon Island and Campus Point (planted Nov. 2005, monitoring is ongoing).
8. Coastal sage scrub restoration on an approximately 30 by 30 square meter plot on the northwest tip of Lagoon Island, will be expanded each year (2006 - present)
9. Coastal sage scrub restoration on an approximately 30 by 50 square meter plot to the east of San Nicolas wetland on the bluff overlooking the lagoon, to be expanded each year (2006-present),
10. Coastal sage scrub restoration on an approximately 30 by 250 square meter swath between the San Nicolas wetland site and the University Center on bluff, to be expanded each year (2006- present.),
11. Restoration of approximately one acre of coastal dune and sage scrub at the West Depression and restoration of approximately 0.5 acres of coastal dune and sage scrub at East Depression (2005-2007),
12. Creation of Habitat Island for Pelicans, Cormorants, Egrets, Terns, Gulls from Crew Dock (2006) Available for roosting 11.5 months/year, used for Crew team in early October.
13. Experimental Restoration Trials (Prescribed fire and Coastal Sage Scrub restoration on Lagoon Island) (0.75 acre) (2006-2008). This project was approved in accordance with CEQA (Notice of Exemption) and the CCC in July 2006).

All of these projects, dating back to 1995, have been managed and/or implemented by CCBER, formerly known as the Museum of Systematics and Ecology. Other on-going maintenance activities by CCBER in the Lagoon Management Area include:

1. Trim trail borders where poison oak is present,
2. Restoration areas weeded, enhanced and expanded where possible; including removal of seedlings of invasive trees such as olive, *Myoporum*, *Ficus*, and *Schinus molle*.
3. Monthly bird monitoring surveys
4. Annual restoration site monitoring
5. Research on water quality (nutrients, bacteria, heavy metals); benthic invertebrates, soils, hydrology, bathymetry, plant biodiversity and wildlife. – on-going as funding permits to support restoration decision making
6. West Weir mussel removal, oversight by Facilities Management and implemented through contracts.
7. Biweekly trash pick up from West Depression

8. Removal of unsafe structures (e.g. homeless encampments, concrete on Campus Point).

Purpose of this Initial Study

This Initial Study has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) to evaluate the potential for the project to result in significant environmental impacts. As described by section 15063(c) of the *CEQA Guidelines*, the purposes of an Initial Study are to:

- Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration.
- Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.
- Assist in the preparation of an EIR, if one is required, by:

  (A) Focusing the EIR on the effects determined to be significant,
  (B) Identifying the effects determined not to be significant,
  (C) Explaining the reasons for determining that potentially significant effects would not be significant, and
  (D) Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.

- Facilitate environmental assessment early in the design of a project;
- Provide documentation of the factual basis for the finding in a Negative Declaration that a project would not have a significant effect on the environment;
- Eliminate unnecessary EIRs;
- Determine whether a previously prepared EIR could be used with the project.

Project Information

Project Title:	Lagoon Restoration
Campus:	University of California, Santa Barbara Campus
Lead Agency Name and Address:	UC Santa Barbara Office of Campus Planning & Design Santa Barbara, CA 93106-1030
Contact person and phone number:	Shari Hammond, Senior Planner UC Santa Barbara Office of Campus Planning & Design Santa Barbara, CA 93106-1030 805-893-3796
Project Location:	UC Santa Barbara, Campus Lagoon
Project sponsor's name and address:	UC Santa Barbara Office of Campus Planning & Design Santa Barbara, CA 93106-1030
Custodian of the administrative record for this project:	UC Santa Barbara Office of Campus Planning & Design Santa Barbara, CA 93106-1030
Date Checklist Completed:	June 2008

Lead and Responsible Agencies

The University of California is the Lead Agency for the Lagoon Restoration project and is responsible for complying with the requirements of CEQA. UC Santa Barbara's Chancellor, as delegated by the Regents of the University of California for projects of this scope, is the primary decision making body for this project. The California Coastal Commission will also review the project for compliance with the 1990 Long Range Development Plan and the California Coastal Act. A Notice of Impending Development will be submitted to the California Coastal Commission for review and approval upon adoption of this environmental document.

Cumulative Development

Since the Lagoon Restoration projects will not include the construction of buildings and will mostly consist of restoration efforts the proposed project would not likely result in cumulative environmental impacts during construction or operation of the proposed project.

The University is upgrading existing storm drain systems on the Main Campus and would be redirecting runoff from the Central and East Central Drainage areas to a new Campus Lagoon discharge point located southeast of the San Nicolas Residence Hall. Drainage improvements were analyzed in the Main Campus Infrastructure Renewal Mitigated Negative Declaration which was adopted by the UC Santa Barbara Chancellor in November 2007 (Rodriguez 2007). Although independent of the Project, the cumulative impacts of both projects on the environment are considered as part of this MND.

The new pipe that would extend into the lagoon would be 42-inches in diameter and would replace and follow the alignment of an existing 12-inch line. The proposed 42-inch lagoon discharge drainage pipe would be provided with a "splitter" that would divert dry season "nuisance" flows to the new biofiltration system to be created at this site. A Continuous Deflective Separation (CDS) unit would be installed as part of the storm drain upgrade at this location. The freshwater pulses will provide benefits to the restoration of the area and the wetland will mitigate some of the effects of having storm water enter the lagoon.

2.0 SETTING

Local and Regional Setting

The project site is on the UC Santa Barbara Main Campus in an unincorporated portion of southern Santa Barbara County. The Pacific Ocean borders the Main Campus to the south and east, and the Goleta Slough and the Santa Barbara Municipal Airport are located to the north. The community of Isla Vista is located west of the Main Campus (Figure 1).

Project Site and Surrounding Uses

The Project is located within the Campus Lagoon Management Plan Area which encompasses about 94 acres, approximately 27 acres of this area is designated Environmentally Sensitive Habitat Area (ESHA) in the 1990 Long Range Development Plan (LRDP). The area includes coastal bluffs and terraces, ocean beaches, sand dunes, the rocky Goleta Point, wetlands and the approximate 31-acre Campus Lagoon (Figure 2)

The Campus Lagoon has a surface elevation of approximately six feet above mean sea level (Jones and Stokes 1999). The Lagoon is non-tidal but receives constant input from seawater discharged from the Marine Biology Laboratory, and freshwater from nine culverts that drain 168 acres of the campus. The Lagoon drains into the ocean through an overflow weir located in the southwestern corner of the lagoon. This weir consists of vertical cement box with a grate on top within the lagoon connected to a 36-inch diameter pipe under the west depression of the lagoon that connects to a 3 by 3 by 5-foot tall cement box on the beach. Water flows through the grate, into the pipe and out on to the beach from under the beach weir box. This pipe must be cleared of mussels a minimum of 2 times per year because they regularly colonize and clog the pipe. There are two overflow mechanisms on the east side of the lagoon which consist of 18 inch pipes that drain when water exceeds the west weir levels.

This Lagoon Restoration project encompasses three specific areas, San Nicolas, Lagoon Island, and Campus Point and includes approximately 32 of the 94 acres in the Campus Lagoon Management Plan Area. The Lagoon Restoration Project site areas are shown on Figure 2. Lagoon Island encompasses approximately 20 acres, Campus Point is approximately 9 acres, and the San Nicolas Area is approximately 3 acres. Lagoon Island and Campus Point are surrounded by the Pacific Ocean to the south and east, and the Lagoon to the north. The San Nicolas site is surrounded by the Campus Lagoon to the south, Parking Lot 5 to the east, Channel Islands Road, and San Nicolas Hall to the north.

The San Nicolas area is dominated primarily by Kikuyu grass (*Pennisetum clandestinum*); Campus Point is dominated by iceplant (*Carpobrotus edulis*), annual grasses (*Bromus diandrus, Lolium multiflorum*), and coyote brush (*Baccharis pilularis*); and Lagoon Island is dominated by annual grasses (*Bromus diandrus*), iceplant (*Carpobrotus edulis*), and wild radish (*Raphanus sativa*). Large non-native trees also occur at all three sites. Six trees on the project site are proposed for removal including 2 blue gum eucalyptus trees (*Eucalyptus globulus*), 2 Acacia longifolia, and 2 Melaleuca nesophila. Trees adjacent to the project site and Lagoon Island include blue gum, Monterey Cypress (*Cupressus macrocarpa*) and others. Six blue gum eucalyptus trees outside the project area are slated for removal at a later date. Over 500 saplings of native coast live oaks (*Quercus agrifolia)* also grow on Lagoon Island.

Figure 1 Regional and Local Setting

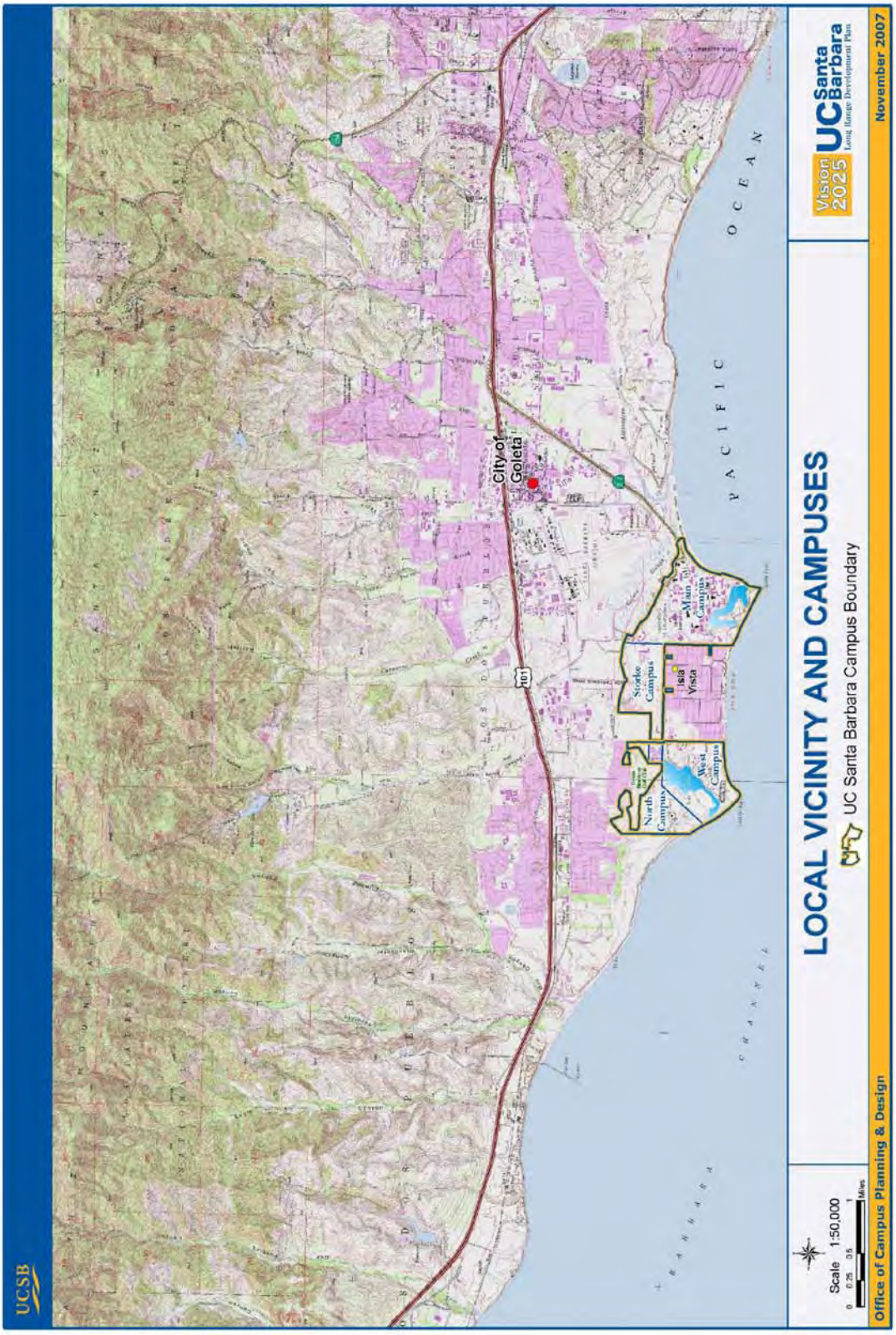

Figure 2: Site Plan

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The site contains coastal communities and wetlands that are increasingly rare along California's south coast, including restored coastal dune sites and salt marsh habitat. Several rare birds and plants are known to occur in the Campus Lagoon Management Area, including Western Snowy Plover (*Charadrius Alexandrinus*), Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*) and White-tailed Kite *(Elanus leucurus)*; red sand-verbena *(Abronia maritima),* southern tarplant *(Centromadia parryi ssp. australis),* and Coulter's saltbush *(Atriplex coulteri)*. Bird roosting areas used by double crested cormorants (*Phalacrocorax auritus*) are located in trees that overhang the lagoon edge east of the San Nicolas site and across the lagoon on the northern edge of the Lagoon Island. Appendix 1 (Appendix 2 of the Lagoon Management Plan) describes the existing biological resources on Lagoon Island.

3.0 PROJECT DESCRIPTION

The Lagoon Restoration Project proposes restoration activities in three sites adjacent to the Campus Lagoon including an area adjacent to San Nicolas Hall, Lagoon Island, and Campus Point consistent with the Lagoon Management Plan (Figure 2). Restoration activities include

- Habitat restoration and enhancement,
- Public access improvements,
- Infrastructure improvements,
- Safety improvements,
- Education improvements, and
- Opportunities for ongoing research projects.

Photo 1: Site of proposed habitat enhancement activities in the San Nicolas Area. San Nicolas dormitory is in the upper right corner of the photograph. The restoration plan proposes to improve habitat quality between the lagoon edge and the road. July 19, 2005. (*Jennifer Jackson)*

Habitat restoration and creation would occur on the slope below San Nicolas Dormitory ("San Nicolas"), Lagoon Island, and Campus Point, as described in detail below and illustrated on Figures 3 through 5. The primary strategy used to enhance the native plant communities would be to remove exotic vegetation and replace it with native vegetation. Other non-native vegetation would be removed gradually as native communities are established. Consistent with the Lagoon Management Plan, significant ornamental plantings such as "icon trees," would be preserved to maintain the existing character and structure of the lagoon and because they provide opportunities for research and education. Existing native vegetation, selected non-native mature trees, and selected habitat features such as bird roosts would be protected during implementation of the project. The restoration effort includes protection and propagation of special-status plant species that are identified in the Lagoon Management Plan.

Approximately 1.9 miles of trails currently exist within the project area. The project would retain 1.47 miles of trails, close 0.33 miles of trail, and relocate 0.12 miles of trail to control erosion, improve safety, and enhance habitat values (Figure 6). The project also seeks to inform the public of the natural and cultural history of the site through interpretive exhibits. Topics may include native plant communities, plant adaptations, wildlife, restoration activities, Chumash activities in the area, and historical use of the site.

Figure 6 identifies potential locations for interpretive exhibits and coastal access information. The purpose of all signage within the lagoon area would be to educate the public on the unique environmental and historical aspects of the lagoon area. Signs would be placed at entrances to sensitive areas to provide information on trail locations and the sensitive nature of surrounding habitat. All signs would be low profile and would be constructed of materials that blend in with the surrounding environment.

The proposed restoration activity at each of the three sites is described in detail below.

Figure 3: San Nicolas Project Area

Coastal Sage

Coastal Sage Scrub - Rhus series

Riparian Woodland

Salt Marsh

Stormwater Filtration Marsh

Willows

Bird Roosting Area

Source: Van Atta Associates

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Source: Van Atta Associates

Figure 4: Lagoon Island Project Area

- Coastal Seep
- Sand Dune & Coastal Sage
- Southern-facing bluffs
- Salt Marsh
- Coastal Bluff Sage & Grassland
- Oak Woodland
- Coastal Sage Scrub - Rhus Series

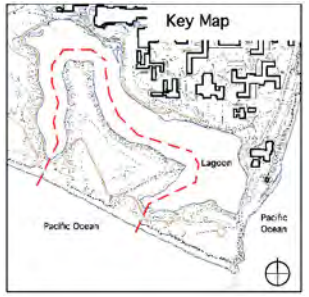

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Exhibit 3a - Mitigated Negative Declaration

Source: Van Atta Associates

Figure 5: Campus Point Project Area

- Coastal Bluff Sage & Grassland
- Sand Dune & Coastal Sage
- Back Dune Swale
- Back Dune Swale
- Salt Marsh
- Torrey Pines
- Cypress
- Oak Woodland

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Figure 6: Trail Locations & Coastal Access Plan

Management Goals & Strategies

1. San Nicholas Public Access
2. Campus Point Coastal Access
3. Lagoon Island Coastal Access

Source: Van Atta Associates

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San Nicolas Area

Existing Setting

Storm water is currently discharged from two storm drains; one outlet is located near the top of the slope at the San Nicolas area and the second is located within the willow woodland on the shore of the lagoon. The site has very sandy soils and is saturated most of the year from a combination of piped storm water and sub-surface flow. Excess water sheet flows down the slope and crosses over the emergency access road to the lagoon. This has degraded the emergency access road. As part of the future Main Campus Infrastructure Renewal project (Rodriguez 2007), a culvert would be constructed to route the water underneath the access road into the second detention area adjacent to the lagoon edge. This second detention area is currently vegetated with fresh water marsh and riparian species (Willows and Juncus textiles (basket rush) because of the fresh water support it receives from the second small storm drain located in the center of the patch of willows. This project will retain the fresh water support for this wetland. The emergency access road would be resurfaced and regraded to accommodate the new culvert. This would provide more reliable year-round access for emergency vehicles and increase habitat quality along the edge of the lagoon.

Photo 2: Non-native grassland, dominated by Kikuyu grass, on the slope between San Nicolas dormitory and the lagoon. The restoration plan proposes to remove and replace this existing vegetation with a created freshwater wetland fed by existing irrigation water runoff from above. Lagoon Island in background. A willow forest is located on the opposite side of the road (seen in the right side of the photograph). February 26, 2007. (*Jennifer Jackson)*

Freshwater Wetland Creation

The San Nicolas restoration area is approximately 2 acres in size. Non-native grassland, dominated by Kikuyu grass (*Pennisetum clandestinum*), on the slope between San Nicolas Hall and the Campus Lagoon would be removed and replaced by a created freshwater wetland fed by existing irrigation water runoff from above (Photo 2). The freshwater wetland would incorporate species such as prairie bulrush (*Bolboschoenus maritimus*), common spikerush (*Eleocharis macrostachya*), and western goldenrod (*Euthamia occidentalis*), among others (Appendix 2). Specifically, 2,500 cubic yards of soil would be cut from the slope to create two detention basins. Approximately 650 cubic yards of this cut material would be used as fill and placed under the road to raise its elevation to accommodate the upgraded storm drain pipe as described in Cumulative Developments in Section 1.0. The total disturbance area for grading necessary to create the detention basins and raise the road would be approximately 1.2 acre. The plan includes implementation of an interim grading plan that will accommodate the existing San Nicolas Hall, service road, and new detention basins, and a temporary pedestrian trail (approximately 100 to 120 feet in length and 8 to 10 feet wide) that will be dirt, and match the proposed grade as closely as possible, in the location of the future ADA ramp. The alignment of the trail is identified in Figure 6.

The two detention basins together would be 0.9 acres in size, and 18 to 36 inches deep. They would be designed to detain stormwater discharged from two existing pipe outlets that convey irrigation water and rainwater runoff from above. Check dams, constructed of locally-obtained rock, would be installed between the two detention basins to reduce the energy of stormwater outflow from the outlets and facilitate absorption of the water into the ground. The basins would be vegetated with California bulrush (*Schoenoplectus californicus*), Indian rush (*Juncus textilis*), western goldenrod (*Euthamia occidentalis*), and prairie bulrush (*Bolboshoenus maritimus)*, among other native species. The intended result of the basins is to create wetland functions on the site and to improve the quality of water entering the lagoon. These objectives would be achieved by dissipating the energy of stormwater runoff exiting the pipe outlets. The basins would help control the quantity and quality of stormwater entering the lagoon and would improve habitat quality along the lagoon edge for shorebirds, as well as provide educational and research opportunities.

Salt Marsh Island

A narrow strip (2 to 4 feet wide) of degraded salt marsh habitat that is dominated by pickle weed (*Salicornia virginica*), Jaumea (*Jaumea carnosa*), and salt grass (*Distichlis spicata*) occurs between the lagoon and the access road. The project would include removal of approximately 2,400 square feet of unvegetated compacted earth between the existing access road and the salt marsh vegetation down to a depth (less than 8 inches) suitable for shorebird foraging. This would effectively create a salt marsh island which will enhance habitat quality. Species to be planted in this location include, but are not limited to California saltbush (*Atriplex californica*), matscale (*Atriplex watsonii*), spiny rush (*Juncus acutus*), and yerba mansa (*Anemopsis californica*) (Appendix 2).

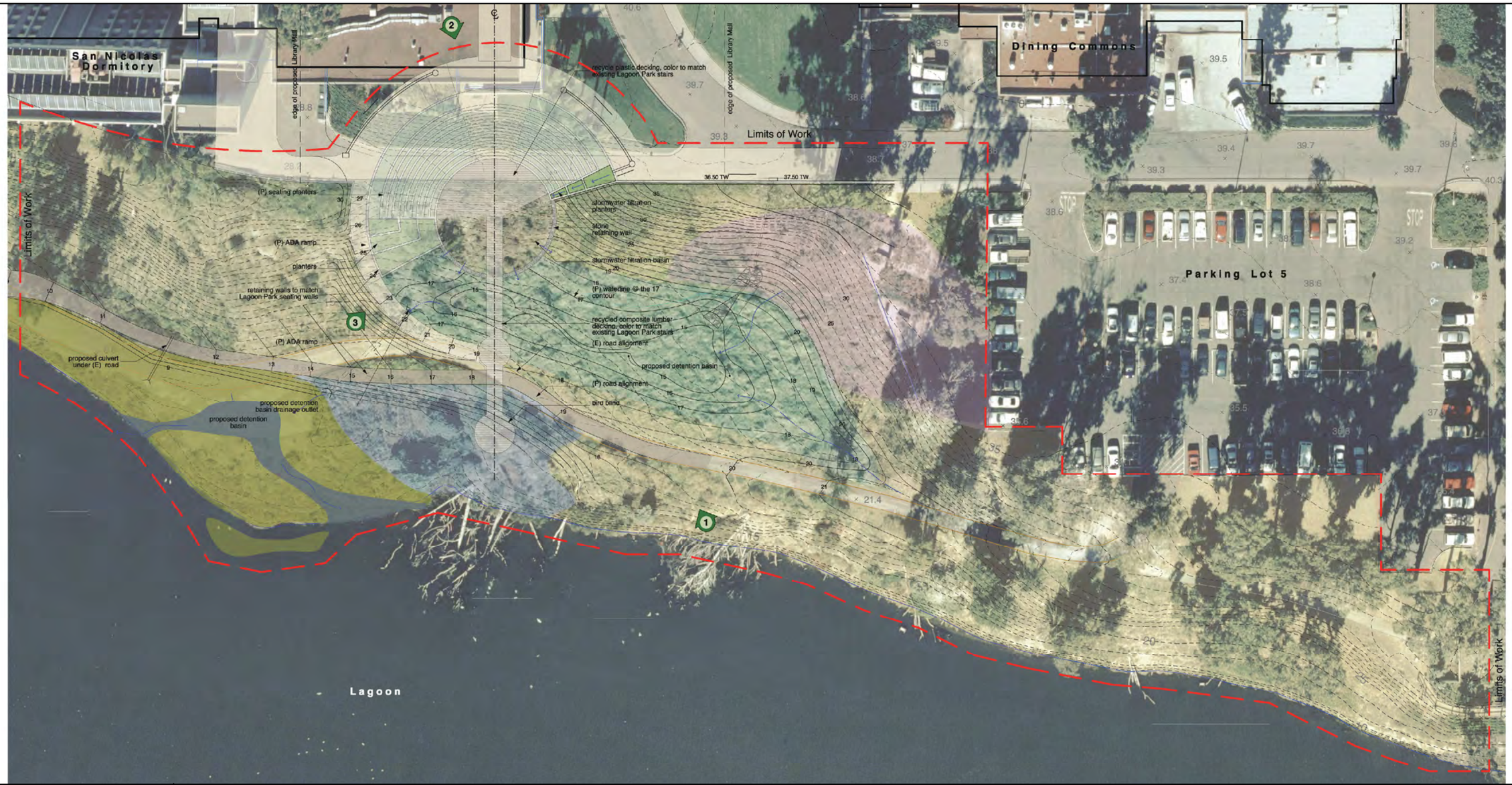
The proposed project would enhance shorebird habitat of this island by extending shallow foraging areas on the lagoon side of the salt marsh island by depositing material cut from the slope and beneath the road and making the slope into the deep lagoon shallower over a distance of three feet by 50 feet. These shallow foraging areas and island would be approximately 50 by 10 feet in size and would be designed to increase protected habitat for shore birds. This element of the plan would emulate the successful habitat enhancement projects done in 1995-1996 at the lagoon, close to the University Center (Photo 3). Over 3,000 birds have been observed on and around the created islands over past 10 years; while in comparison, in all of the other steep shoreline areas of the lagoon combined, 800 birds have been observed. Furthermore, the restored areas support or have supported 85 species of birds in comparison to an average of 25 species, with a high of 48 species in other non-restored segments at the lagoon shore (Stratton personal communication 2007). Thus the project is expected to dramatically increase support for a diversity of bird species. The total area of created shorebird habitat would be approximately 800 square feet. A post and cable fence would be constructed to keep pedestrians and vehicles on the access road and prevent further impacts to existing and new salt marsh vegetation. The open water surrounding the offshore islands would act as a natural barrier to predators.

Photo 3: Off-shore islands near the edge of the lagoon near the University Center (in background). These islands were created as part of UCSB's habitat enhancement projects completed in 1998-1999. Similar islands are proposed within the San Nicolas area to increase protected habitat for shore birds. February 26, 2007. (*Jennifer Jackson)*

Future Staircase

A staircase and ramp are planned in the 2025 LRDP (not part of this proposed project) between San Nicolas Dormitory and the lagoon (Figure 7). While this staircase would not be constructed in the immediate near-term, and is not analyzed in this document, it would be integrated into the re-vegetation effort that would occur on the slope between San Nicolas Hall and the Lagoon. The basins at San Nicolas are designed to accommodate the amphitheater/staircase/handicap access that would be constructed as an implementation of the upcoming 2025 LRDP that has, as one of its' goals, improvement of visual access to the lagoon and a physical connection at the southerly terminus of the Library Mall. Habitat enhancement activities at San Nicolas such as the placement of riparian trees, including western sycamore (*Platanus racemosa*), cottonwood (*Populus* balsamifera ssp. trichocarpa), and elderberry (*Sambucus mexicana*), in this area would be complementary to the future staircase, maintain views of the lagoon and ocean, and maintain bird roosting areas.

The new staircase would be constructed in the shape of an amphitheatre looking out over the lagoon, and it would include an ADA accessible ramp that would allow people to travel from the highest to the lowest elevation. The staircase would connect the Main Campus Library Mall and the lagoon providing both a visual and physical connection between the campus and the lagoon and ocean. The dimensions of the staircase would be in the shape of a semi-circle, approximately 280 feet in diameter (including the ADA ramp) and 132 feet deep.



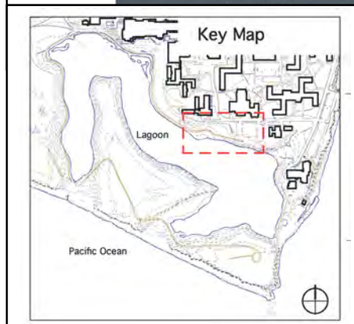
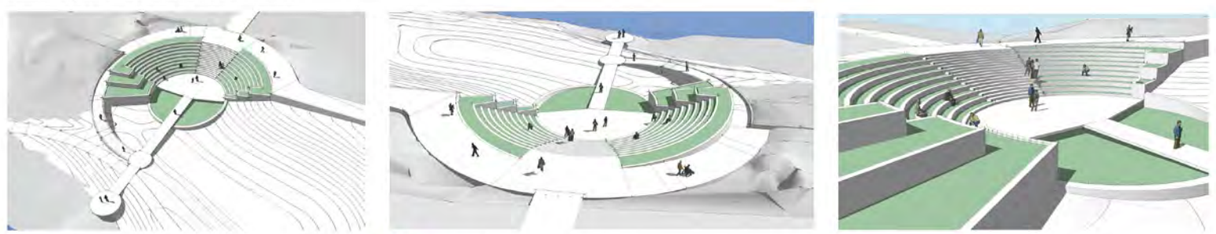


Figure 7: Proposed San Nicolas Stairs

3-D Perspectives of Proposed Staircase



1 Birds-eye perspective from the south

2 Birds-eye perspective from the north

3 Perspective from west of the amphitheatre

Source: Van Atta Associates

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Campus Point Area

Existing Setting
Campus Point is characterized by large areas dominated by non-native plants such as iceplant (*Carpobrotus edulis*), Eucalyptus, golden wattle (*Acacia pycnantha*), and Myoporum, among others. An emergency access road and several primary and secondary trails exist.

Restoration
Approximately 6.8 acres of iceplant and non-native grasses would be removed and replaced by native coastal scrub species such as seacliff buckwheat (*Eriogonum parvifolium*), coast sunflower (*Encelia californica*), bush monkeyflower (*Mimulus aurantiacus*) and green everlasting (*Gnaphalium californicum*). Eucalyptus and cypress trees (*Cupressus macrocarpa*) would be trimmed to facilitate growth of native species. Dead trees would be removed gradually over time as native trees grow to a sufficient size and stature to replace them. Native coastal sage scrub and coast live oak communities would be created. Toyon (*Heteromeles arbutifolia*), coffeeberry (*Rhamnus californica*), redberry (*Rhamnus crocea*), elderberry (*Sambucus mexicana*), and lemonadeberry (*Rhus integrifolia*), among other natives, would be incorporated into the landscape in order to maintain the structure and character of the Campus Point area. Three large Torrey Pines on Campus point would be retained as representative coastal species although not local to Santa Barbara. (Lists of species to be planted are provided in Appendix 2).

Back Dune Swale
A dune scrub and back dune swale area would be created in this area by excavating sand approximately 2 feet deep until within a foot of the clay layer of the marine terrace is reached. The total amount of earth excavated to create the back dune swale area is expected to be approximately 1,000 cubic yards. The back dune swale area would encompass approximately 0.25 acre, while the total habitat would encompass approximately 0.69 acres. An asphalt pad (approximately 16,000 square feet [0.37 acre] in size) that exists on the bluff top of Campus Point would be removed. The asphalt pad, identified in the Figure 8, is a remnant from the military era of the UCSB campus in the 1940s. Following removal of the asphalt, the area would be covered by the soil excavated from the back dune pond creation site, and revegetated with native dune and coastal sage scrub species including beach evening primrose (*Camisonia cheiranthifolia*), coast sunflower (*Encelia californica*), coast goldenbush (*Isocoma menziesii*) and others.

Campus Point Staircase
At Campus Point, an existing series of informal trails lead from the east revetment approximately 25 feet up the slope to the bluff top (photo 5). The footpaths provide access to well-traveled lookout points on Campus Point, and also contribute to severe gullying of the slopes on the bluff edge. To provide public access and safety, a stairway is proposed for this location on the north side of Campus Point as shown in Figure 9.

Figure 8: Existing Conditions Site Analysis

- Existing main trail/emergency access - paved road
- Areas where steepness and/or lenght of slope on main trail exceeds maximums allowed by ADA requirements
- Existing secondary trail - informal dirt trail
- Existing trail closure - restored with native vegetation
- Proposed or relocated trail
- Areas of existing iceplant to be removed
- Existing bird roosts
- Views to be preserved and enhanced

Source: Van Atta Associates

0 125 250 500 Feet

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Figure 9: Campus Point Stairs

Source: Van Atta Associates

Recycled composite lumber boardwalk to match Lagoon Park stairs; boardwalk will minimize erosion on bluff

Bluff overlook deck to minimize erosion on bluff; located to best take advantage of view

Pathway relocated away from bluff

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Preliminary designs indicate that most of the body of the staircase will be above ground, supported by cast-in-place concrete piers that are embedded into the bedrock. It is proposed to be consistent in appearance and design with the staircase leading from Manzanita Village student housing to the Lagoon west of Lagoon Island. The stairway (five ten-foot lengths) would span the distance from the east revetment of the lagoon to the paved emergency access road on the top of the Campus Point Mesa with four platforms (12 by 12 feet and 15 by 15 feet) and a 175 total feet of boardwalk over the level areas and would be constructed of recycled composite lumber decking and non-chromated copper arsenate (CCA) treated wood to be visually compatible with the recently constructed staircase in Lagoon Park. The proposed stairway would include landings and connecting boardwalks (Figure 9).

Photo 4: Existing trail on the north slope of the Campus Point area adjacent to the lagoon. Salt marsh habitat occurs between the trail and the open water. The restoration plan proposes to modify or relocate this trail to increase the area of salt marsh habitat. February 26, 2007. (*Jennifer Jackson)*

Interpretive Signs and Trail Restoration and Closure

Interpretive signs at well- traveled locations would be installed to educate the public on subjects such as ecosystem function, local geology, coastal processes, local flora and fauna. Signage at the base of the bluff stairs informing visitors of available trails and level of difficulty is also expected. Areas surrounding the new staircase would be revegetated to stabilize the slope.

Approximately 0.12 miles (612 linear feet) of trails along and near unstable southerly bluff edges in the area of Campus Point would be closed and/or revegetated. Alternative trails would be maintained or created if needed to provide access and key lookout points. Figure 6 identifies existing trails through the project area that are to be maintained, realigned, or closed. Trail closures are proposed in areas where foot and bicycle traffic are causing an increased rate of erosion along steep unstable bluffs. On Campus Point, trail realignments are proposed to shift the existing trails away from the eroding bluff edge. Approximately 50 cubic yards of balanced cut and fill would be required to repair erosion rills that have been created by multiple footpaths.

Photo 5: Informal trail on bluffs at Campus Point. Several similar trails along and near unstable bluff edges in the area of Campus point would be closed and/or revegetated. Alternative trails would be maintained or created if needed to provide access. February 26, 2007. (*Jennifer Jackson)*

Lagoon Island Area

Existing Setting

Lagoon Island has relatively level topography over the central mesa portion of the island, and moderately steep slopes on its sides. Mature non-native trees including Eucalyptus, Monterey Cypress (*Cupressus macrocarpa*), olive (*Olea europaea*), as well as smaller trees or shrubs such as Pittosporum, Myoporum, and Bougainvillea also occur on the island. Several primary and secondary trails exist as well as an emergency access road.

Restoration

Lagoon Island is approximately 20 acres in size. Approximately 14 acres of annual grassland and more than 2.3 acres of iceplant and exotic shrub species, such as mock orange (*Pittosporum undulatum*), would be removed and replaced with native vegetation including, coastal sagebrush (*Artemisia californica*), coast sunflower (*Encelia californica*), giant wildrye (*Leymus condensatus*), and golden yarrow (*Eriophyllum confertiflorum*) and coast live oak (*Quercus agrifolia*), toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia)*, and coffeeberry (*Rhamnus californica*) communities. Selected non-native trees that provide bird and raptor roosting opportunities, visual interest, or have significant botanical interest would be preserved whenever appropriate. Wildlife habitat will be enhanced by setting up bat boxes and drilling nest cavities. Lagoon Island provides opportunities for student research projects in the field of restoration ecology. Maintaining access and providing a location where such projects can be carried out is an important objective of the Lagoon Management Plan.

Photo 6. Non-native vegetation on Lagoon Island.

In order to reduce impacts to the bluffs, approximately 0.21 miles of trail along unstable bluff edges near the southern tip of Lagoon Island would be closed. The existing emergency access road and several dirt trails would remain.

Photo 7. Non-native grasses on Lagoon Island.

Labyrinth

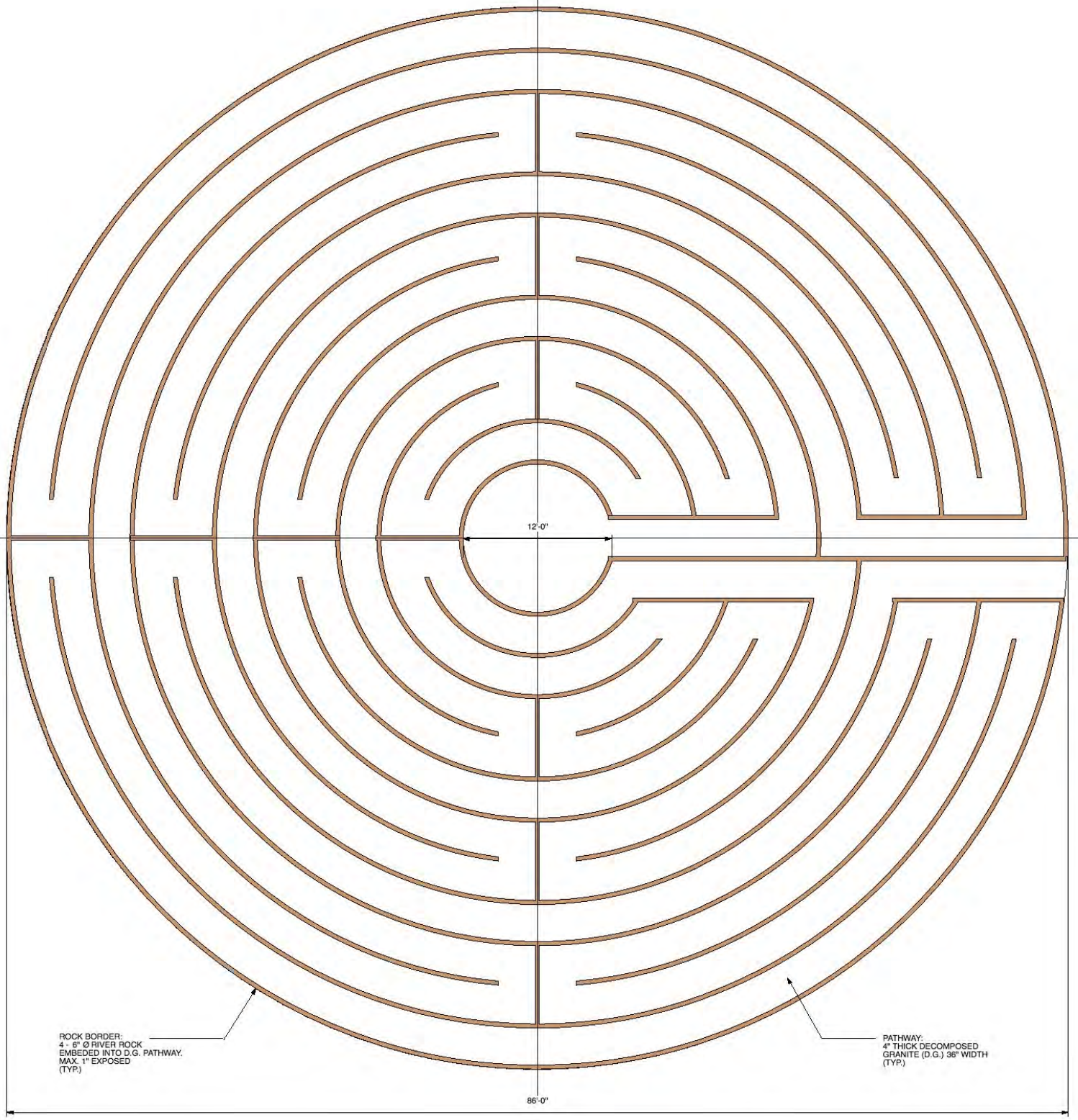
A labyrinth, constructed of river rocks and decomposed granite (DG) would be constructed on Lagoon Island (Figure 10) to provide a non-denominational opportunity for people to spiritually connect to the site and themselves. Labyrinths have been used for centuries as a meditative structure. The labyrinth would have a ~~100~~*86*-foot ~~radius~~ *diameter and the 6 to 4-inch high river rocks would be no more than 1-inch* ~~1-foot~~ above current grade. *In order to include space for an outer pathway, benches, and signs, the compacted area would need to be 92 feet in diameter.* The labyrinth would be surrounded by 30,000 square feet of native plant restoration in conjunction with its installation. The path within the labyrinth would be 36 inches wide, Americans with Disabilities Act (ADA) accessible, and would be bound by river rocks set into the DG. The Plan layout is shown in Figure 11. Construction of the labyrinth will require grading, and compaction of *an approximately* ~~10,000~~ *8,500* square-foot area and include removal of approximately 8,500 square feet of Iceplant, 1,000 square feet of Coyote Sage Brush (*Baccharis pilularis*), and 500 square feet of non-native annual grasses. The surrounding areas will be restored with native vegetation.

Research Projects

Several research projects have been conducted at the Campus Lagoon from which valuable information has been gained and proved useful in refining restoration strategies. A hydrologic study was conducted at the San Nicolas wetland utilizing ten index wells in addition to five wells at a nearby reference site; water levels and salinity were monitored bi-weekly and a soil texture analysis was performed. To assess shorebird habitat at the lagoon, bathymetry, benthic invertebrates, and soil types were quantified and compared to bird survey data collected during the past ten years. Soils analyses were conducted at Lagoon Island, Campus Point, vernal pools at Ellwood, More Mesa, and Manzanita Village. Water quality monitoring conducted from winter of 2006 to fall of 2007 has assessed nutrients, metals, and bacteria levels during storm and non-storm events (Stratton, personal communication 2007). The results of this research have contributed to the likely success of these restoration projects.

LABYRINTH
ENTRANCE

Exhibit 3a - Mitigated Negative Declaration



LABRYINTH PLAN LAYOUT
SC: 1/16" = 1'-0"

Tolosa Gardens & landscapes

Proposed Lagoon Restoration Summary

Table 1: Pre-and Post-project acreage of Plant Communities

Habitat	Pre- project acreage	Post- project acreage	Comments
Annual non-native grassland	17.3	0	Restore in phases
Kikuyu-grass wetland	0.7	0	Convert to freshwater marsh and transition area
Cypress-Eucalyptus woodland	2.1	1.5	Remove selected 100-foot tall blue gums and trim cypress
Iceplant	3.29	0	Solarize Iceplant and replant
Exotic shrub	1.21	0	Remove as restoration reaches them
Scattered Baccharis scrub	1.9	1.5	Will restore around Baccharis
Coastal Sage Scrub	3.4	15.5	Lagoon Island, Campus point and San Nicolas area
Freshwater marsh	0	1	San Nicolas Wetland
Back dune swale	0	0.6	On Campus Point
Salt Marsh	1.35	2	Creation by San Nicolas and protection elsewhere
Wetland transition	0	1	Adjacent to marsh
Coast Live Oak Woodland	0	7	North facing bluffs
Willow/Riparian woodland	0.15	0.2	Enhance area near San Nicolas wetland
Coastal Dune Community	1.5	2.6	Enhance and create on Campus point
Total Non-native	**24.6**	**1**	
Total Restored Native	**8.3**	**31.9**	

4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Descriptions of project-specific and cumulative environmental impacts of the Lagoon Restoration project are provided in the narrative in section 6.0 of this Initial Study. The evaluation of potential environmental impacts determined that the proposed project would not result in environmental impacts regarding the issue areas that are marked with a "•". Environmental impacts to the issue areas that are marked by a "×" were determined to be less than significant. Environmental issue areas that are marked with an "*" could be significantly affected by the project, however, by implementing the mitigation measures that have been identified by this Initial Study, those impacts can be reduced to a less than significant level.

The proposed project would not result in any "Potentially Significant Impacts" that cannot be mitigated to a "Less than Significant" level.

×	Aesthetics	•	Agriculture Resources	*	Air Quality
*	Biological Resources	*	Cultural Resources	*	Geology/Soils/Geotechnical
•	Hazards & Hazardous Materials	*	Hydrology/Water Quality	×	Land Use/Planning
•	Mineral Resources	*	Noise	•	Population/Housing
•	Public Services	•	Recreation	*	Transportation/Traffic
×	Utilities/Service Systems	×	Mandatory Findings of Significance		

- • No impact
- × Less than significant impacts
- * Less than significant with proposed mitigation measures

5.0 ENVIRONMENTAL DETERMINATION

On the basis of the initial evaluation that follows:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project plans or proposals made by or agreed to by the project applicant will avoid or mitigate the effect to a point where clearly no significant effect will occur. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A TIERED ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental document is required. FINDINGS consistent with this determination will be prepared.

	9/30/08
Signature	**Date**
Shari Hammond	University of California Santa Barbara
Printed Name	**For**

6.0 EVALUATION OF ENVIRONMENTAL IMPACTS

Response Column Heading Definitions

A. Potentially Significant Impact is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

B. Less than Significant with Mitigation Incorporated applies where the incorporation of identified mitigation measures will reduce an effect from "Potentially Significant Impact" to a "Less Than Significant Impact."

C. Less Than Significant Impact applies where the project is below the threshold of significance.

D. No Impact applies where a project does not create an impact in that category.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.1 AESTHETICS				
a) Have a substantial adverse effect on a scenic vista?			✓	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			✓	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				✓

Setting

The Campus Lagoon is located between the University Center and Campus Point, utilized primarily by students, faculty, and university staff. It provides an important setting and focus for public use activities that include recreation, nature study and enjoyment, and aesthetic enjoyment of the area. The area is characterized by non-native and native vegetation, wildlife habitat, bike paths, running/hiking trails, and scenic vistas. The visual character of the land surrounding the Lagoon is currently in a degraded state, due to the abundance of non-native vegetation as well as roads and trails that are in disrepair. The access road on the perimeter of the Lagoon is illuminated at night with low intensity bulbs as a safety measure. Trails on Lagoon Island and near Campus Point are not illuminated.

Several scenic vistas of the lagoon exist including:

- 2 scenic viewsheds exist from San Nicolas
- 4 scenic viewsheds exist from Lagoon Island
- 4 scenic viewsheds exist from Campus Point

Several other scenic vistas of Lagoon Island and Campus Point exist including:

- 1 viewshed from the Commencement Green
- 1 viewshed from the San Nicolas Dormitory area
- 1 viewshed from the beach

San Nicolas Area

The San Nicolas area is characterized by a steep slope, tall, non-native grasses of similar height, color, and appearance, and an illuminated paved bike/walking path.

Campus Point
Campus Point is characterized by large areas dominated by non-native plants such as iceplant (*Carpobrotus edulis*), Eucalyptus, golden wattle (*Acacia pycnantha*), and Myoporum, among others. An emergency access road and several primary and secondary trails exist.

Lagoon Island
Lagoon Island has relatively level topography over the central mesa portion of the island, and moderately steep slopes on its sides. Mature non-native trees including Eucalyptus, Monterey Cypress (*Cupressus macrocarpa*), olive (*Olea europaea*), as well as smaller trees or shrubs such as Pittosporum, Myoporum, and Bougainvillea also occur on the island. Several primary and secondary trails exist as well as an emergency access road.

Photo 8: View of Lagoon Island from San Nicolas Dorm showing grey Pride of Madeira shrubs that will be replaced with native coastal sage and oak woodland vegetation. *(Lisa Stratton)*

Checklist Responses

a. Potential to result in a substantial adverse effect on a scenic vista.

San Nicolas
Restoration activities at the San Nicolas project area would result in a more diverse and aesthetically pleasing view of the slope above the Lagoon. Construction of the amphitheatre and stairway at San Nicolas is not proposed at this time; however restoration activities and planting will accommodate the future potential construction so that views would be aesthetically pleasing. The creation of wetlands on the slope and at the lagoon edge would increase the visual diversity and interest of the area. This is considered a *beneficial impact.*

Campus Point
Replacement of informal footpaths with construction of the staircase would change the visual appearance of Campus Point. Due to the design features, including above-grade stairs, neutral colors of materials, and planned plantings of native plants on both sides of the stairs, the staircase is not expected to result in a substantial adverse effect on the scenic vista of Campus Point. This impact would be *less than significant.*

Lagoon Island
Views of Lagoon Island from the commencement green would be altered as a result of the removal of bougainvillea and Pride of Madeira and other non-native species located at the northeastern tip of the island. This impact would be *less than significant.*

b. Potential to substantially damage scenic trees or other visual resources.

San Nicolas
The project includes removal of two 100-foot tall Eucalyptus trees adjacent to the road which would be replaced by two Sycamore, three Alder and five Elderberry trees. These Eucalyptus trees are experiencing root rot; and an adjacent tree fell this year. Impacts from tree removal would be *less than significant.*

Campus Point
No trees are proposed for removal or would be damaged as a result of the proposed stairway at Campus Point. Select trees would be removed from the Eucalyptus grove and Cypress trees would be limbed up to allow for light

to enter the understory to support native plants as part of the proposed restoration work at Campus Point. Impacts would be *less than significant.*

Lagoon Island

Several non-native trees would be removed and replaced with native species over time, such as coast live oak *(Quercus agrifolia)*. These trees include two small patches of Eucalyptus saplings (25 feet tall; 7 trees and 18 trees, apiece), three Olive trees, one Myoporum shrub and three Pink bottle brush trees. These will be removed gradually as restoration develops adjacent to them. Other non-native trees that provide other functions such as bird roosts and "icon" trees that have historical significance or visual prominence (e.g. Torrey pine *(Pinus torreyana)* and mature blue gum *(Eucalyptus globulus)* would be maintained. Still, the loss of some scenic trees could substantially damage the visual resources of the island in the short-term. However, in the long-term, coast live oak woodland would develop providing views of tall trees and associated vegetation and impacts would be *less than significant*.

c. Potential to substantially degrade the existing visual character of the project site.

San Nicolas

The project is expected to improve the visual character of the project site by replacing non-native grass and shrub (Pampas grass) species with native species, increasing species diversity, and incorporating species of varying heights, colors, mass, etc. This is considered a *beneficial impact.*

Campus Point

The proposed stairway has been designed to blend into the visual character of Campus Point and would therefore not degrade views of this area. The creation of a small back dune and dune swale complex and several dunes would greatly increase the visual and aesthetic diversity of Campus point. Impacts would be *less than significant.*

Lagoon Island

The project's removal of non-native shrubs is not expected to significantly change the visual landscape, as native shrubs would be planted to replace them. Impacts would be *less than significant.*

d. Create new sources of substantial light or glare

San Nicolas

There is no lighting proposed as part of restoration activities. There would be *no impact.*

Campus Point

The Lagoon Restoration Project does not propose any lighting at Campus Point. There would be *no impact.*

Lagoon Island

The Lagoon Restoration Project does not propose any lighting on Lagoon Island. There would be *no impact.*

Cumulative Development

San Nicolas

In accordance with 2025 LRDP (out for public review as of this writing), a Campus "Promenade" (large uniform pedestrian area) is planned to connect the north end of the campus near Cheadle and Campbell Halls to the south side of campus ending at the Campus Lagoon. The proposed staircase and amphitheatre at the San Nicolas area is

planned as a future project. No other development is proposed or approved to be built in the vicinity of the San Nicolas area.

Campus Point
No other projects besides the stairway are proposed in the area of Campus Point.

Lagoon Island
A 100-foot diameter labyrinth is planned for development on the Lagoon Island. There would be minimal grading, or smoothing of the site to install the labyrinth rocks and decomposed granite pathway. No other development is proposed on or near the island.

Impacts and Mitigation Measures

There would be no significant impacts to aesthetic resources and no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.2 AGRICULTURE RESOURCES				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				✓

Setting

The project site contains no farmland. In addition, there are no agricultural resources on the Main Campus or in off-campus areas located in the vicinity of the project site.

Checklist Responses

a-c. Potential impacts to agricultural resources.

There are no agricultural operations located on or near the project site, and it is not reasonably foreseeable that agricultural operations would be established near the project site in the future. Additionally, the project is neither zoned for agricultural use, nor is it subject to a Williamson Act contract. The project does not involve other changes in the existing environment which, due to their location or nature, could result in the conversion of farmland to non-agricultural use. Therefore, the project would not have the potential to result in significant project-specific or cumulative impacts to agricultural resources.

Impacts and Mitigation Measures

The project would not result in significant project-specific or cumulative impacts to agricultural resources. No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.3 AIR QUALITY				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		✓		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		✓		
d) Expose sensitive receptors to substantial pollutant concentrations?				✓
e) Create objectionable odors affecting a substantial number of people?				✓

Setting

The lagoon is a park-like setting and does not contribute to the production of any emissions or expose sensitive receptors to air pollutants or unpleasant odors.

Checklist Responses

a. Air Quality Plan Consistency.
The project is not expected to conflict with any air quality plan consistency. There is *no impact*.

b-c. Potential to exceed air quality standards.
The project is not expected to affect air quality in the long-term. There would be short-term, mitigable impacts as described below.

Short Term Construction Impacts.

Grading of the slope at the San Nicolas site would entail 2,500 cubic yards of cut, and 650 cubic yards of fill. This is likely to result in dirt and dust particulates to be released into the air over a two week period and could result in significant short-term impacts to air quality. Emissions from construction vehicles and equipment used for grading and tree removal activities is not expected to have a significant impact on local or regional air quality.

Mitigation Measure AQ-1 and AQ-2 would reduce impacts to *less than significant with mitigation* from dust generation during construction.

Long-term Operation Impacts.
The project would not cause long-term operational impacts to air quality.

d. Potential to expose sensitive receptors to substantial pollutant concentrations.
The project is not expected to expose sensitive receptors to substantial long-term pollutant concentrations. The proposed project would not be a source of greenhouse gases and would contribute to carbon storage with revegetation and tree planting. There is *no impact*.

e. Create objectionable odors affecting a substantial number of people.
The project is not expected to create any objectionable odors. There is *no impact*.

Impacts and Mitigation Measures

Impact AQ-1: Grading material in the amounts of 2,500 cubic yards of cut, and 650 cubic yards of fill at San Nicolas could result in potentially significant impacts to air quality in the immediate vicinity of the project.

Impact AQ-2: Equipment used for grading, tree removal, and paving activities would release particulate emissions in the project vicinity above current levels for a period expected to be no longer than two to three weeks in duration.

Mitigation AQ-1: The following mitigation measures would reduce impacts from dust generated during construction to less than significant.

1. During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

2. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning and after work is completed for the day and whenever wind exceeds 15 miles per hour.

3. Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

Plan Requirements: All requirements shall be shown on grading and building plans.

Timing: Condition shall be adhered to throughout all grading and construction periods.

MONITORING: UC Santa Barbara Office of Campus Planning and Design shall ensure measures are on plans. Design and Construction Services inspectors or CCBER project manager, shall spot check, and shall ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

The following mitigation measures would reduce health risk to faculty, staff, and students due to exhaust emissions from diesel-powered off-road and on-road construction equipment.

Mitigation AQ-2:

1. Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) should be utilized whenever possible;

2. The engine size of construction equipment shall be the minimum practical size;

3. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at one time;

4. Construction equipment shall be maintained in tune per the manufacturer's specifications;

5. Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines; and

6. Catalytic converters shall be installed on gasoline-powered equipment, if feasible.

Plan Requirements: All requirements shall be shown on grading and building plans.

Timing: Condition shall be adhered to throughout all grading and construction periods.

MONITORING: UC Santa Barbara Office of Campus Planning and Design shall ensure measures are on plans. Design and Construction Services inspectors or CCBER project manager shall spot check, and shall ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.4 BIOLOGICAL RESOURCES				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		✓		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		✓		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				✓
e) Conflict with any local applicable policies protecting biological resources?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?				✓

Setting

Several vegetation communities (or "series") exist within the Lagoon Management Area: coastal strand, san-verbena-beach bursage, California sagebrush, coyote brush, California annual grassland, pickleweed, ditchgrass, ornamental landscaping, open water, and barren areas. These are described in detail in Appendix 1. The lagoon supports over 200 species of resident, migrating, and visiting birds and a diverse assemblage of invertebrates, fish, reptiles, amphibians, and mammals. Approximately 27 acres of the Lagoon Management Plan area has been identified as ESHA in the LRDP (UCSB 1990). The ESHA designation includes the lagoon and parts of Lagoon Island, San Nicolas area, and Campus Point, and beaches to the east and south.

Eucalyptus, Kikuyu grass (*Pennisetum clandestinum*), iceplant (*Carpobrotus edulis*), and annual grass *Bromus diandrus* are among the dominant non-native species within the management area; other non-native species include pampas grass (*Cortaderia selloana*), giant reed (*Arundo donax*), Bermuda grass (*Cynodon dactylon*), Myoporum, New Zealand spinach (*Tetragonia expansa*), and Australian saltbush (*Atriplex semibaccata*) (Jones and Stokes 1999).

Three special status plant species exist within the vicinity of the project site, red-sand verbena *(Abronia maritima)*, southern tarplant *(Centromadia [Hemizonia] parryi* ssp. *australis),* and Coulter's saltbush *(Atriplex coulteri)*. These species are listed on the California Native Plant Society (CNPS) as having special status and none are State or federally listed. Red-sand verbena exists on west depression and potentially near east depression. Southern tarplant occurs on the eastern side of the lagoon, adjacent to the sea water pump area and adjacent to the "quarry" area near east depression. Coulter's saltbush *(Atriplex coulteri)* is known to exist within the Manzanita Village Restoration area (outside the project boundary).

Sensitive wildlife species include, but may not be limited to: double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), black-crowned night heron (*Nycticorax nycticorax*), tri-colored blackbird (*Agelaius tricolor*) (species of special concern in California), wandering skipper (*Panoquina errans*), western snowy plover (*Charadrius alexandrinus nivosus*)(federally listed as threatened and a California species of concern), and California brown pelican (*Pelecanus occidentalis californicus*) (listed as State and federally endangered species), among others. Brown pelican and double-crested cormorant do not nest in the management area, but they forage and roost in the lagoon and along the shoreline. Western snowy plover is not known to nest in the management area, but it rests and feeds on the beaches during migration. Tricolored blackbird has been observed in the lagoon area, but there is no indication that it nests there. Wandering (salt marsh) skipper has not been reported from the management area; however, it could occur in the pickleweed series habitat along the margins of the lagoon (Jones and Stokes 1999). A bird roosting area currently exists at San Nicolas and on downed trees near the top bluff on Lagoon Island that attracts double-crested cormorants.

San Nicolas Area

The proposed project would cut 2,500 cubic yards of soil from the slope to create two detention basins. 650 cubic yards would be reused as fill to raise the road for the drainage pipe proposed for this area in the Main Campus Infrastructure Renewal Project (Rodriguez 2007). Approximately 1.2 acres of area would be graded to create the detention basins and raise the road. Kikuyu grass, 2 Eucalyptus trees, 1 Pampas grass, 1 Acacia longifolia, 2 myoporum, 1 schinus terebinthifolius, 5 to 10 Ricinis sp (Castor bean), English Ivy and annual weeds such as wild radish and mustard would be removed.

Approximately 2,400 square feet of unvegetated compacted earth between an existing access road and the salt marsh vegetation down to a depth (less than 8 inches) suitable for shorebird foraging would be removed to create a salt marsh island which will enhance habitat quality.

Construction of the staircase is not proposed as part of this project however its design would be integrated into the revegetation effort.

Checklist Responses

a. Result in a substantial adverse effect on plants or animals species of concern.
The three plant species of special concern are not within the San Nicolas project area and would not be impacted from project implementation. Sensitive bird species in the project vicinity are not known to nest in the project area but are known to forge and roost. Grading of the slope at San Nicolas could temporarily affect double crested cormorants (a Species of Special Concern) roosting nearby. Mitigation

Measures SN-BIO-1, BIO-2, and BIO-3 would reduce potentially significant impacts to special status birds to *less than significant with mitigation*.

b. Result in a substantial adverse effect to riparian or other sensitive habitat.
The project would preserve existing native vegetation such as willows, cattails, and bulrush and improve and restore species diversity by removing selected Eucalyptus trees and replacing other non-native species with native species. The project area would be enhanced from restoration activities and wetland areas would be created. Impacts to sensitive habitats would be *less than significant*.

c. Result in a substantial adverse effect to wetlands.
Wetlands would be created in the San Nicolas area. In the short-term siltation as a result of construction may adversely affect the lagoon. Implementation of best management practices and erosion control methods described in Mitigation Measure BIO-1 would reduce this impact to *less than significant with mitigation*.

d. Result in substantial adverse effects to migration corridors.
The project is not expected to result in substantial adverse effects to migration corridors as existing bird roosts would be maintained and additional habitat would be created as a result of the project. This is considered a *beneficial impact*.

e. Conflict with applicable policies protecting biological resources.
The project would implement portions of the 1990 LRDP and Management Plan for the Campus Lagoon (an amendment to the 1990 LRDP) and would not conflict with applicable policies protecting biological resources. There would be *no impact*.

f. Conflict with an adopted conservation plan. The proposed project site is not part of any habitat or natural community conservation plan and would adhere to the Lagoon Management Plan. The proposed project is designed to enhance habitat thus will help protect habitat, or threatened and endangered species. There would be *no impact*.

Impacts and Mitigation Measures

Impacts

SN-Impact BIO-1: Approximately 2,500 cubic yards of cut and fill on the slope between the lagoon and the dormitory would be moved as part of the wetland creation project. Grading of the slope could potentially result in short-term erosion; deposition of sediment in the lagoon could also occur in the short-term.

SN-Impact BIO-2: The grading period (expected to last two to three weeks) may disturb double crested cormorants (*Phalacrocorax auritus*) and other species roosting at the lagoon and those inhabiting the willow woodland at the bottom of the slope.

SN-Impact BIO-3: The grading period (expected to last two to three weeks) may disturb amphibians and reptiles on the slope between the lagoon and the dormitory.

Mitigation

SN-Mitigation BIO-1: Implementation of GEO-1 would reduce potentially significant impacts from erosion and sedimentation.

SN-Mitigation BIO-2: Weekly pre-construction surveys shall be conducted within 30 days of ground disturbance (associated with construction or grading) by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act are present in the construction zone or within 300 feet of the construction zone (March 1 through August 31). If ground disturbance activities are delayed for more than 30 days past the pre-construction survey, then additional pre-construction surveys shall be conducted such that no more than 30 days will have elapsed between the survey and ground disturbance activities. If active nests are found, clearing and construction within 300 feet of the nest (500 feet for raptors) shall be postponed or halted, at the discretion of the biologist, until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest shall be established in the field with flagging, fencing, or other appropriate barrier. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests occur. The results of the survey(s) and any avoidance measures taken, shall be submitted to the University and the CDFG within 30 days of completion of the pre-construction permits. Fencing of sufficient height and design shall be placed (outside of the bird nesting season) between the edge of the area to be graded and the willow woodland at the bottom of the slope to deter access into this area.

SN-Mitigation BIO-3: A qualified biologist shall serve as a construction monitor and oversee grading activities. Any reptiles and amphibians that are encountered shall be captured (if it can be done safely) and relocated to a suitable nearby location.

Plan Requirements: All requirements shall be shown in bid documents and on demolition and grading plans.

Timing: Condition shall be adhered to prior to site preparation and demolition.

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are in bid documents and on plans. Design and Construction Services and/or CCBER project manager shall ensure survey is performed and compliance with survey results is met.

Campus Point Area

Development activities at the Campus Point area include restoration of approximately 6.8 acres of area, trimming eucalyptus and cypress trees, and creating coastal sage scrub and coast live oak communities. A back dune swale, encompassing approximately 0.69 acres, would be created in this area which includes excavation of approximately 1,000 cubic yards of soil. An asphalt pad (approximately 0.37 acres) would be removed. A stairway made from recycled composite lumber and non-CCA treated wood is proposed on the north side of Campus Point.

Checklist Responses

a. Result in a substantial adverse effect on plants or animals species of concern.
Habitats which could potentially support sensitive plant and wildlife species would be restored and enhanced. Special-status plant species known to exist in the area would be included in the planned plant palettes for restoration efforts. Existing sensitive plant species such as red-sand verbena (Abronia maritima) would be preserved. A minor amount of ground disturbance and vegetation removal would be required to create the footings for the staircase. Implementation of CP-Mitigation-BIO-1 and BIO-2 would reduce impacts to sensitive plant and animal species to *less than significant with mitigation.*

b. Result in a substantial adverse effect to riparian or other sensitive habitat.

The project is expected to preserve existing native vegetation and improve and restore species diversity by trimming selected Eucalyptus trees and replacing other non-native species with native species. Construction of the stairway would not affect riparian or other sensitive habitat. Ground disturbing activities from stairway construction could cause erosion and sedimentation into the Campus Lagoon. Implementation of CP-Mitigation-BIO-1 and BIO-2 would reduce impacts to sensitive plant species to *less than significant with mitigation*.

c. Result in a substantial adverse effect to wetlands
Degraded salt marsh habitat exists within the Campus Point area and would be preserved and enhanced as a result of the project. The back dune swale creation would enhance wetland habitats. Non-native vegetation such as iceplant (*Carpobrotus edulis*) would be replaced with native vegetation. Impacts would be *less than significant*.

d. Result in substantial adverse effects to migration corridors.
The project would not result in substantial adverse effects to migration corridors as existing bird roosts would be maintained and additional habitat would be created. This is considered a beneficial impact. There would be *no impact* to migration corridors.

e. Conflict with applicable policies protecting biological resources.
The project would implement portions of the 1990 LRDP and Management Plan for the Campus Lagoon (an amendment to the 1990 LRDP). There would be *no impact*.

f. Conflict with an adopted conservation plan.
The proposed project site is not part of any habitat or natural community conservation plan and would adhere to the Lagoon Management Plan. The proposed project is designed to enhance habitat thus will help protect habitat, or threatened and endangered species. There would be *no impact*.

Impacts and Mitigation Measures

CP-Impact BIO-1 Sensitive plants such as red-sand verbena could potentially be impacted as a result of revegetation, public access enhancement, and other restoration activities on Campus Point.

CP-Impact BIO-2 A minor amount of ground disturbance and vegetation removal would be required to create the footings for the staircase. Erosion and sedimentation could occur during ground disturbing activities.

CP-Mitigation BIO-1: All known locations of sensitive species shall be flagged and surveys shall be conducted prior to any disturbance activities in order to locate other potential sites.

CP-Mitigation BIO-2: Implementation of GEO-1 would reduce potentially significant impacts from erosion and sedimentation from stairway construction.

Plan Requirements: All requirements shall be shown in bid documents and on demolition and grading plans.

Timing: Condition shall be adhered to prior to site preparation and demolition.

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are in bid documents and on plans. Design and Construction Services and/or CCBER project manager shall ensure survey is performed and compliance with survey results is met.

Lagoon Island Area

Activities on Lagoon Island include removal of approximately 15.5 acres of non-native vegetation including annual grassland, iceplant, and exotic shrub species. The area will be restored with native vegetation. Approximately 0.21 miles of trail along the bluff edge would be closed and restored. A 100-foot diameter labyrinth would be installed requiring grading, and compaction of a ~~10,000~~ *8,500* square-foot area and including removal of approximately 8,500 square feet of Iceplant, 1,000 square feet of Coyote Sage Brush (*Baccharis pilularis*), and 500 square feet of non-native annual grasses.

Checklist Responses

a. Result in a substantial adverse effect on plants or animals species of concern.
Habitats on Lagoon Island which could potentially support sensitive plant and wildlife species would be restored and enhanced. Special-status plant species known to exist in the area would be included in the planned plant palettes for restoration efforts. Existing sensitive plant species such as red-sand verbena (*Abronia maritima*) would be preserved, as well as, Coulter's saltbush (*Atriplex coulteri*), and southern tarplant if they are observed. Removal of Iceplant and non-native grasses to install the labyrinth would be a less than significant impact because these plants are exotic non-native species. Coastal Sage Scrub is ruderal and will be replaced as part of the proposed restoration activities. Implementation of LI-Mitigation- BIO-1 and SN-Mitigation BIO-2 would reduce impacts to sensitive plant species to *less than significant with mitigation*.

b. Result in a substantial adverse effect to riparian or other sensitive habitat.
Restoration activities on Lagoon Island will restore and improve species diversity of existing riparian woodlands, sand dune and coastal sage scrub, coastal bluff, salt marsh, and oak woodland on Lagoon Island. Implementation of LI-Mitigation-BIO-1 and SN-Mitigation BIO-2 would reduce impacts to sensitive plant species to *less than significant with mitigation*.

c. Result in a substantial adverse effect to wetlands.
Degraded salt marsh habitat would be restored and would provide additional habitat for wildlife. This is considered a beneficial impact and impacts would be temporary and *less than significant.*

d. Result in substantial adverse effects to migration corridors.
The project is would not result in substantial adverse effects to migration corridors as existing bird roosts would be maintained and additional habitat would be created. This is considered a beneficial impact. There would be *no impact* to migration corridors.

e. Conflict with applicable policies protecting biological resources.
The project would implement portions of the 1990 LRDP and Management Plan for the Campus Lagoon (an amendment to the 1990 LRDP) and would not conflict with existing policies. There would be *no impact*.

f. Conflict with an adopted conservation plan.
The proposed project site is not part of any habitat or natural community conservation plan and would adhere to the Lagoon Management Plan. The proposed project is designed to enhance habitat thus will help protect habitat, or threatened and endangered species. There would be *no impact*.

Impacts and Mitigation Measures

LI-Impact BIO-1 and -2: Re-vegetation, public access enhancement, and other restoration activities may disturb double-crested cormorants (special status species) known to occur on the top bluff and other birds roosting on Lagoon Island. Implementation of LI-Mitigation BIO-1 below and of SN-Mitigation BIO-2 would reduce impact to less than significant.

LI-Mitigation BIO-1: All known locations of sensitive species shall be flagged and surveys shall be conducted prior to any disturbance activities in order to locate other potential sites.

Plan Requirements: All requirements shall be shown in bid documents and on demolition and grading plans.

Timing: Condition shall be adhered to prior to site preparation and demolition.

MONITORING: UCSB Office of Campus Planning and Design shall ensure measures are in bid documents and on plans. Design and Construction Services and/or CCBER project manager shall ensure survey is performed and compliance with survey results is met.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.5 CULTURAL RESOURCES				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				✓
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		✓		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d) Disturb any human remains, including those interred outside of formal cemeteries?		✓		

Setting

One recorded archaeological site (SBa-563) is present in the vicinity of Campus Point. It consists of a dense shell mound, or midden, and is thought to have been associated with a prehistoric base camp. Most of the midden was destroyed by a scraper during construction of an asphalt pad (measuring approximately 50 feet in diameter) in 1948 (Riddell 1948, Glassow 1973). A bank of high density shell deposit remains in the area. Additional undisturbed deposit may still exist underneath the pavement and the bank of deposit. This is considered a significant resource.

Policy Number 30244.5 of the LRDP (UCSB 1990a) requires contractors to temporarily suspend activities if archaeological or paleontological resources are disclosed during any planning, pre-construction, or construction phase of a project activity that could damage or destroy these resources. In the event archaeological resources are unearthed during project construction, all earth disturbing work within in the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative shall monitor any mitigation work associated with Native American cultural material.

Proposed grading activities for asphalt removal and back dune swale creation on Campus Point would be in the vicinity of SBa-563. Development of wetlands and restoration activities and installation of the labyrinth on Lagoon Island are not in the vicinity of SBa563.

Checklist Responses

a. Cause substantial adverse changes in the significance of historical resources.
No historical resources have been documented within the boundary of work; therefore, no significant impacts are anticipated as a result of the project. There would be *no impacts* to historical resources

b. Cause substantial adverse changes to the significance of archaeological resources.
The archaeological site could be disturbed during the removal of asphalt pad if excavation of the pad were done by heavy equipment being operated without knowledge of the site beneath the pad.

Archological resources could also be uncovered during grading for back dune swale creation. Implementation of 1990 LRDP policy 30244.5 and CP-Mitigation-CUL-1 through CUL-5 would reduce the impact to *less than significant with mitigation*.

c. Potential to impact paleontological resources or other geological features.
No paleontological or significant geologic features have been reported within the boundary of work, though the coastal bluffs are considered a sensitive geologic area. The recommendations in the geotechnical report for the stairway (Fugro West, Inc. 2007) would be followed and impacts would be *less than significant*. Implementation of GEO-1 would reduce impacts from erosion and sedimentation during construction of the stairway at Campus Point to *less than significant with mitigation*.

d. Disturb any human remains, including those interred outside of formal cemeteries?
There is no record of human remains in SBa-563 on Campus Point. This site consists of a dense shell midden. In the event human remains are discovered during removal of the asphalt or back dune swale creation Implementation of Mitigation-CUL-1 through CUL-5 would reduce potential impacts to *less than significant with mitigation*.

Impacts and Mitigation Measures

Impact CUL-1: Removal of the asphalt pad with heavy equipment and grading for back dune swale creation in the absence of a professional archaeologist as a monitor could result in significant impacts to the archeological site.

Mitigation-CUL-1: A professional archaeologist shall be onsite monitoring the construction during the entire excavation period of the asphalt pad and creation of the back dune swale.

Mitigation-CUL-2: The asphalt pad shall be removed with a jackhammer or by hand; no heavy equipment shall be used. The sand that is removed from the back dune swale creation site shall be spread over the cultural site. After appropriate documentation has occurred, the site shall be covered with sand native to the site and revegetated with native plants

Mitigation CUL-3: If any unanticipated archaeological artifacts are uncovered during excavation, such work shall be stopped immediately, and a qualified archaeologist (not affiliated with UCSB) shall be consulted to assess the nature, extent, and possible significance of the artifacts. Their ultimate disposition shall be based on the opinion of the qualified archaeologist and shall include consultation with an authorized Chumash representative.

Mitigation CUL-4: If human remains are discovered, all work shall be stopped immediately and the County Coroner shall be notified within 48 hours. There shall be no further disturbance to the site where the remains were found. If the remains are Native American, the coroner is responsible for contacting the Native American Heritage Commission within 24 hours. The Commission shall immediately notify those persons it believes to be most likely to be descended from the deceased Native American.

Mitigation-CUL-5: A monitoring report documenting the findings and results of the project shall be completed by the archaeologist and submitted to Central Coast Information Center upon completion of the monitoring period and all associated activities.

Plan Requirements: Measures to protect cultural resources shall be included on project plans and in contract documents.

Timing: Project plans and contract documents shall include measures to protect cultural resources prior to construction.

Monitoring: The project manager from Design and Construction Services and/or CCBER shall ensure protection measures are included in project plans and contract documents and provide project plans to UCSB planning staff.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.6 GEOLOGY AND SOILS				
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines & Geology Special Publication 42.			✓	
ii) Strong seismic ground shaking?			✓	
iii) Seismic-related ground failure, including liquefaction?				✓
iv) Landslides?			✓	
b) Result in substantial soil erosion or the loss of topsoil?		✓		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓

Setting

The Goleta Point Fault trends northeast-southwest along the coast just offshore of the campus and crosses the edge of the Campus Lagoon management area at Goleta Point. No direct observation of fault displacement has been confirmed, and no conclusion concerning the fault's activity is reported (Slayman *pers. comm.* 1995 in Management Plan for the Campus Lagoon 1999). The Campus Fault has been reported to trend northeast-southwest under the main campus. No direct surface or subsurface evidence of this fault has been confirmed southeast of the Phelps Hall area on the main campus (Slayman *pers. comm.* 1995). The location of this fault relative to the Campus Lagoon management area is unknown, but the conclusion of a geotechnical study associated with the University Center expansion project is that it does not pass through that site (K-C Geotechnical Engineering 1990 in Management Plan for the Campus Lagoon 1999). The activity level of this fault has been variously reported as ranging from inactive to potentially active (Slayman *pers. comm.* in Management Plan for the Campus Lagoon 1999).

The Campus Fault has been reported to trend northeast-southwest under the main campus. No direct surface or subsurface evidence of this fault has been confirmed southeast of the Phelps Hall area on the main campus (Slayman *pers. comm.*). The location of this fault relative to the Campus Lagoon management area is unknown, but the conclusion of a geotechnical study associated with the University Center expansion project is that it does not pass through that site (K-C Geotechnical Engineering 1990).

Checklist Responses

a. Expose people or structures to substantial geologic hazards.
Based on the components of the project and implementation of recommendations in the geo-technical report (Fugro West Engineering 2007 *final pending*) for the construction of the stairway at Campus Point, the removal of non-native plants, revegetation with native plants, grading on the slope between San Nicolas Dormitory and the lagoon, are not expected to expose people or structures to any additional geologic hazards. Impacts would be *less than significant*.

b. Result in substantial soil erosion impacts.
Grading of the slope at the San Nicolas site could potentially result in short-term erosion, which is a potentially significant impact. The installation of stairs at Campus Point, revegetation activities, and proposed trail closures are expected to rehabilitate eroded slopes and prevent further erosion from occurring though some erosion could potentially occur during installation of stairway footings. Implementation of GEO-1 would reduce potentially significant impacts to *less than significant with mitigation*.

c. Potential to be affected by soil-related hazards (on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse).
The Campus Lagoon area is not known to be in an area of landslide, lateral spreading, subsidence, liquefaction, or collapse; and therefore the project is not expected to be affected by soil related hazards. Recommendations in the geotechnical report would be followed and potential impacts from the installation of the stairway at Campus Point would be *less than significant*.

d. Potential to be affected by expansive soils.
At Campus Point, marine terrace deposits occur in the top four feet of silty sand. The next six feet consist of clay sand. The installation of the stairway at Campus Point would entail ground disturbance that is limited to drilling holes in the ground to support the posts of the staircase. The San Nicolas and the Campus Point staircases would be constructed according to the recommendations of the geotechnical report and is not expected to be affected by expansive soils. Impacts would be *less than significant*.

e. Potential to result in septic tank failure impacts.
Septic tanks do not exist and are not proposed to be part of the project. There would be *no impact*.

Impacts and Mitigation Measures

Impact GEO-1: Grading of the slope at the San Nicolas site, installation of the stairway at Campus Point, and grading for back dune swale creation, could potentially result in short-term erosion.

GEO-1: The following grading and erosion control practices shall be included in the proposed project's erosion control plan and be implemented at the project site for the entire duration of construction.

a. If grading occurs during the rainy season (November through March), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.

b. A site-specific erosion control and landscape plan shall be prepared for all new construction.

c. Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm water runoff.

d. Grading operations shall be conducted so as to prevent damaging effects of sediment production and dust on site and on adjoining properties.

e. Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area shall be fenced to define project boundaries.

f. Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities.

g. Sediment traps, silt fences, straw bales, or other similar sediment control measures shall be installed before clearing and grading operations begin.

Plan requirements: The project manger from Design and Construction Services and/or CCBER shall ensure the erosion control measures including all best management practices shall be included in project plans, contract documents, and the erosion control plan prior to construction. The project manager shall ensure best management practices are in place during the entire length of construction.

Timing: Erosion control measures shall be in project plans, contract documents, and the erosion control plan prior to construction and best management practices are in place during the entire length of construction.

Monitoring: The project manager from Design and Construction and/or CCBER shall monitor the project site during the entire length of construction to ensure best management practices are in place and are effective. The project manager shall report to UCSB planning staff.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.7 HAZARDS AND HAZARDOUS MATERIALS Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				✓
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				✓
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓

Setting

It is the policy of the University of California to maintain a reasonably safe environment for its students, academic appointees, staff and visitors. Campus operations are to be conducted in compliance with applicable regulations and with accepted health and safety protocols.

The UCSB Office of Environmental Health and Safety (EH&S) has the primary responsibility for coordinating the management of hazardous materials on campus. Environmental Health and Safety also develops and assists in the implementation of compliance strategies for all federal and state regulations related to hazardous material and waste management.

Checklist Responses

a-c. Potential to result in impacts from the use or accidental release of hazardous materials. Hazardous substances would not be used in the construction or maintenance of the proposed project. Therefore, the project would not result in a substantial increase in the use of hazardous materials or the generation of hazardous waste at UC Santa Barbara. There would be *no impact*.

d. Located on a site with known contamination. The project site is not identified on the list of properties affected by hazardous waste contamination that has been compiled by the California Department of Toxic Substances Control (*Hazardous Waste and Substances Sites List, 1997*). In the unlikely event that excavations at the project site uncover suspected hazardous waste product or residue, the campus office of Environmental Health and Safety (EH&S) would be contacted. EH&S would conduct the necessary assessments of the site to determine if the suspected material was hazardous, and if necessary, the material would be removed or remediated in accordance with federal, state and University regulations and policies. Compliance with existing regulations would be adequate to reduce potential site contamination impacts to a less than significant level. There would be *no impact*.

e, f. Potential airport-related conflicts. The project site is located outside of the runway approach or clear zone established for the Santa Barbara Airport. There would be *no impact*.

g. Potential to interfere with emergency response or evacuation plans. The project would not remove or reconfigure any existing roadways used for emergency response or evacuation. The project would not generate traffic volumes that would have the potential to interfere with emergency response routes on other Main Campus roads or on roadways near the campus. There would be *no impact*.

h. Potential wildland risk.
The project is not expected to expose people or structures to an increased risk of wildland fire. There would be *no impact*.

Impacts and Mitigation Measures

The Lagoon Restoration Project would not result in an increase in hazardous material use on the UC Santa Barbara campus, nor would it result in any potentially significant impacts related to hazards or hazardous materials. No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.8 HYDROLOGY AND WATER QUALITY				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?		✓		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			✓	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			✓	
f) Otherwise substantially degrade water quality?		✓		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓
j) Inundation by seiche, tsunami, or mudflow?				✓

Overall Setting

The watershed for the Campus Lagoon consists of the open space areas and bluffs around the lagoon margins and the Main Campus, which is connected to the lagoon by the campus stormwater drainage system (Jones and Stokes 1999). The campus seawater system for marine science research drains into the Campus Lagoon.

Surface water originating on the Main Campus drains to one of three water bodies: the Goleta Slough, Campus Lagoon, or the Pacific Ocean. There are five drainage basin subareas on the Main Campus and the South and West basins discharge into the Campus Lagoon and Pacific Ocean. The South Campus Basin encompasses the following storm drainage systems: San Miguel, San Nicolas, De La Guerra Commons, University House, and Santa Cruz. These areas total approximately 24.8 acres. The culverts drain irrigation and rainwater runoff from the Main Campus toward the lagoon.

Lagoon Island and Campus Point have no inputs of freshwater other than rainfall. Runoff from the island enters the lagoon and runoff from the point runs off into the lagoon and/or the ocean.

Checklist Responses

a. Potential to violate water quality standards or waste discharge requirements.

Grading activities at San Nicolas would expose slopes during construction and displacement of soil for the Campus Point stairway could lead to erosion in the short-term that may introduce sediment into the lagoon. Construction vehicles leaking oil or other fluids, or heavy machinery that is accidentally overturned and concrete washouts could result in spillage of petrochemicals and other materials that could adversely impact water quality in the lagoon and or the ocean. The proposed restoration and labyrinth projects would not violate water quality standards or waste discharge requirements over the long-term. The proposed grading plan, installation of a culvert, creation of two detention basins are expected to improve water quality of runoff entering the lagoon. Implementation of HYD-1 would reduce impacts from erosion and sedimentation to *less than significant with mitigation*. Implementation of HYD-2 would reduce potentially significant impacts from spilled petrochemicals to *less than significant with mitigation*.

b. Substantially deplete groundwater supplies or recharge.

None of the proposed projects would utilize or affect groundwater or surface water. There would be *no impact*.

c. Substantially alter drainage patterns, resulting in an increase in erosion.

Drainage patterns would be altered as a result of the cut and fill necessary to construct the basins and to install the culvert at the San Nicolas site. Creation of detention basins and revegetation activities areas would prevent any erosion and sediment transfer into the lagoon. Soil disruption at campus point would be limited to installation of posts to support the staircase and slope stabilization measures with the intent of slowing erosion. Creation of the back dune swale would alter drainage patterns slightly on Campus Point, but the preliminary design includes at least 75 feet from the bluff and a grade that slopes away from the bluff. Increased erosion is not anticipated. Impacts would be *less than significant*.

d-e. Substantially alter drainage in a manner that would result in flooding, or additional sources of polluted runoff.

The project at San Nicolas would not result in flooding in the area and would improve drainage into the lagoon. The potential for pollutants entering the lagoon would be reduced by creation of the detention basins and

revegetation efforts. Drainage patterns would not be altered as a result of revegetation efforts and installation of the labyrinth on Lagoon Island. Construction of the stairway at Campus Point and the creation of the back dune swale would not result in flooding or create additional sources of polluted runoff. Impacts would be *less than significant*.

f. Potential to result in substantial impacts to runoff water quality.
Grading activities at San Nicolas would expose slopes during construction and displacement of soil for the Campus Point stairway could lead to erosion in the short-term that may introduce sediment into the lagoon. The proposed restoration and labyrinth projects would not violate water quality standards or waste discharge requirements over the long-term. The proposed grading plan, installation of a culvert, creation of two detention basins are expected to improve water quality of runoff entering the lagoon. Implementation of GEO-1 would reduce these impacts to *less than significant with mitigation*.

g-j. Potential flooding impacts

Proposed activities at San Nicolas, Lagoon Island, and Campus Point would not increase the potential for flooding. There would be *no impact*.

Impacts and Mitigation Measures

Impact HYD-1: Grading activities could expose slopes during construction that could lead to erosion in the short-term that may introduce sediment into the lagoon. This short-term impact is potentially significant.

Mitigation-HYD-1 Implementation of GEO-1 would reduce impacts from erosion and sedimentation to less than significant.

Plan requirements: The project manger from Design and Construction Services and/or CCBER shall ensure the erosion control measures including all best management practices shall be included in project plans, contract documents, and the erosion control plan prior to construction. The project manager shall ensure best management practices are in place during the entire length of construction.

Timing: Erosion control measures shall be in project plans, contract documents, and the erosion control plan prior to construction and best management practices are in place during the entire length of construction.

Monitoring: The project manager from Design and Construction and/or CCBER shall monitor the project site during the entire length of construction to ensure best management practices are in place and are effective. The project manager shall report to UCSB planning staff.

Impact-HYD-2: Construction vehicles leaking oil or other fluids, or heavy machinery that is accidentally overturned, and concrete washouts could result in spillage of petrochemicals and other materials that could adversely impact water quality in the lagoon and or the ocean.

Mitigation-HYD-2: Equipment and fluid staging areas shall be located at least 100 feet from the lagoon. Spill containment kits shall be located in the equipment staging storage areas. Sediment spoils and dewatering areas shall be located in upland areas well away from the lagoon and stands of native vegetation. Concrete washout areas shall be located in a designated containment area.

Plan requirements: The project manger from Design and Construction Services or CCBER shall ensure the construction staging, stockpile and dewatering areas are identified on all project plans, contract documents, and the erosion control plan prior to construction. The project manager shall ensure best management practices are in place during the entire length of construction.

Timing: Construction staging areas shall be in project plans, contract documents, prior to construction and best management practices are in place during the entire length of construction.

Monitoring: The project manager from Design and Construction and/or CCBER shall monitor the project site during the entire length of construction to ensure the contractor is adhering to the requirements of this mitigation measure. The project manager shall report to UCSB planning staff.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.9 LAND USE AND PLANNING Would the project:				
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the LRDP, general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			✓	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

Setting

The Lagoon Restoration Project is proposed on UC Santa Barbara's Main Campus which is governed by the policies of the 1990 Long Range Development Plan (LRDP). A Lagoon Management Plan was prepared in 1999 and submitted to the Coastal Commission as an amendment to the 1990 LRDP. The Lagoon Management Plan contains management actions for restoration and protection of the Lagoon Management Area (Jones and Stokes 1999).The land use designation for the Lagoon Management Area is *Open Space* as shown on LRDP Figure 53 and the Lagoon Island and Campus Point is *Environmentally Sensitive Habitat* on Figure 52.

Checklist Responses

a. Potential to divide an established community. The development of the project would not divide or isolate any uses established on the UC Santa Barbara campus. There would be *no impact*.

b. Conflict with applicable land use plans or policies. An analysis of the projects' consistency with the policies of the LRDP is provided below. The land use designation for the San Nicolas area is *Open Space* and is adjacent to Environmentally Sensitive Habitat area. The proposed project in the San Nicolas area is consistent with this designation and will be a benefit to the surrounding habitat. Campus Point and Lagoon Island are *Open Space* and *Environmentally Sensitive Habitat*. The ESHA designation for these areas is largely due to the pristine location on the coast. Both of these areas are covered with non-native vegetation and are eroded. The proposed project will enhance the habitat in these areas and create more ESHA. The labyrinth would be installed in an area where non-native vegetation is predominant. Restoration efforts would take place surrounding the labyrinth resulting in increased ESHA area. Installing a labyrinth in this area is consistent with other public access components of Lagoon Island and Campus Point. Since the proposed project would take place on the Campus, no other local land use plans or policies apply. Impacts would be *less than significant*

The following LRDP policies apply to the Lagoon Restoration project.

Table 2 Long Range Development Plan Policy Consistency Analysis

POLICY	ANALYSIS
Scenic and Visual Qualities	
30251.14 Tree trimming or removal near heron nest trees shall be timed to avoid the nesting season.	**Consistent**. The project would be consistent with this policy. Sensitive bird surveys would be performed prior to tree removal.
30251.9 Trees or shrubs may be selectively removed or trimmed to provide views to and along the ocean and scenic coastal areas along the primary view corridors identified in Figure 49 (Existing Coastal Views) or for safety reasons. Any removal of trees or shrubs shall be timed to avoid the nesting season of local birds (January through June).	**Consistent**. The project would be consistent with this policy as nesting birds are protected.
30253.3 No development shall be permitted on the bluff face, except for staircases or access ways to provide public beach access and pipelines for instructional or research-oriented use.	**Consistent**. Development of the proposed staircase at Campus Point would be consistent with this policy as it would provide public access to the beach.
30253.5 The bluff top setbacks, required by Policy Nos. 30251.1, 30251.2 and 30251.3, shall not be construed to prohibit the development of stairways, pathways, parks, utility infrastructure or the replacement of expansion of existing structures. Such development shall require a geologic investigation and report as part of Project-specific environmental review. The report shall consider and analyze the following: (a) Cliff geometry and topography; (b) Historic, current and foreseeable cliff erosion; (c) Geologic conditions; (d) Evidence of past or potential landslide; (e) Impact of construction activity; (f) Ground and surface water conditions; (g) Potential erodibility during and after construction; (h) Potential effects of a maximum earthquake.; (i) Any other factors which might affect slope stability; and (j) Potential impacts and mitigation measures.	**Consistent**. A geologic study has been completed. The proposed stairway would be consistent with this policy.
30251.7 In order to preserve existing native trees and significant stands of trees which pre-date University acquisition of the Campus, to the extent feasible, native trees shall be retained within the overall site area of new development.	**Consistent.** Native trees will be retained within the project area. Some non-native eucalyptus trees will be removed to improve the native habitat in the Lagoon Management Area. The project would be consistent with this policy.
Safety, Stability, Pollution, Energy Conservation, Visitors	
30253.2 Subsurface geotechnical and soil studies shall be conducted to determine proper building foundation design to address potential seismic and liquefaction hazards, if any.	**Consistent.** A geotechnical engineering study has been prepared for the proposed project (Fugro 2007).
Public Works Facilities	
30254.1 Development of water mains, reclaimed water	**Consistent.** Detention basins will be designed to filter

POLICY	ANALYSIS
distribution systems, water treatment facilities, sewage lines, telephone transmission lines, and parking lots and structures will be designed and constructed to meet Campus needs. Future development provided for in the LRDP land use plan will only be permitted by the University after it has been demonstrated that adequate water and sewer services are available to supply the existing and proposed development. The program for monitoring current levels of water and sewage services shall be continued to ensure a reserve of water and sewer capacity to serve the campus.	storm water from the Main Campus and will improve the quality of storm water entering the Campus Lagoon.
Access, Recreation Opportunities, Posting	
30210.14 Feasible access for the physically challenged shall be provided where topographical and environmental constraints allow. Coastal access for the physically challenged to bluff-top viewing points shall be provided in Lagoon Park and West Campus Bluffs. Additional coastal access for the physically challenged will be provided by the installation of at least one handicap accessible parking space in each of the proposed coastal access parking lots shown on Figure 30.	**Consistent.** These elements are incorporated into the proposed project. The project would be consistent with this policy.
30240(a).8 Pedestrians and bicycles shall be encouraged to remain on existing trails. Signs shall be posted.	**Consistent.** Habitat restoration implementation is likely to encourage pedestrians and bicyclists to remain on existing trails. The project would be consistent with this policy.
30210.17 Public access policies under this section shall be subject to restriction, as determined by the campus, only when public access is inconsistent with the following: (a)Public health or safety; (b) Natural disaster, civil disorders which pose a threat to property, or other such seriously disruptive events; (c) Extraordinary measures, which are required to immediately avert, alleviate, or repair damage to campus property, or to maintain the orderly operation of the campus; military security needs; (d) Protection of fragile coastal resources; and (e) Adequate nearby access	**Consistent**. The project provides for public access at San Nicolas, Lagoon Island, and Campus Point and is therefore consistent with this policy.
Development Not To Interfere With Access	
30211.1 Motor vehicle traffic generated by new development shall not restrict or impede public access to or along the coast by exceeding the roadway capacity of existing coastal access routes on Campus.	**Consistent.** The proposed project would not result in the generation of new traffic. Therefore, the project would be consistent with the requirements of this policy.
Environmentally Sensitive Habitat Areas; Adjacent Developments	
30240(a).10 South-facing ocean bluffs on the Main and West Campuses shall be left in their present state.	**Consistent.** The project does not propose development on the south facing bluffs and is consistent with this policy.
Archeological or Paleontological Resources	
30244.1 All available measures shall be explored to avoid development which will have adverse impacts on archeological resources.	**Consistent**. Available measures have been explored. The project will minimize impacts on archeological resources and the project is consistent with this policy.
30244.2 The Office of Public Archaeology, the	**Consistent**. The project proponent/contractor would

POLICY	ANALYSIS
Department of Anthropology, and a Native American representative will be consulted when development is proposed which may adversely impact archeological resources.	adhere to the requirements of this policy.
30244.3 When development is proposed for areas where archaeological resources are affected, the project will be designed to minimize impacts on such resources.	**Consistent**. The project is designed to minimize impacts on archaeological resources. The project is consistent with this policy.
30244.4 During any grading and other activities that may result in ground disturbance on archaeological sites, a non-University of California affiliated archeologist recognized by the State Office of Historic Preservation and a Native American representative shall be present.	**Consistent**. The project would be consistent with this policy with incorporation of this measure into the project description.
30244.5 Should archeological or paleontological resources be disclosed during any planning, pre-construction or construction phase of the project, all activity which could damage or destroy these resources shall be temporarily suspended until the site has been examined by a non-University archeologist recognized by the State Office of Historic Preservation. Mitigation measures shall be developed and implemented to address the impacts of the project on archeological resources.	**Consistent.** The project proponent/contractor would adhere to the requirements of this policy.
30244.6 Vehicle use, unauthorized collecting of artifacts, or other activities which would destroy or disturb archeological resources shall continue to be prohibited.	**Consistent**. The project would protect archaeological resources from being impacted in these ways, and is therefore consistent with this policy.
30244.7 When development is proposed which may impact an archaeological resource, the University shall follow a step-by-step procedure for identifying, evaluating, and mitigating impacts on archeological resources identified in the Cultural Resources Appendix of the 1990 LRDP FEIR. The University shall follow this program on a project-by-project basis.	**Consistent**. The project proponent/contractor would adhere to the requirements of this policy.
Biological Productivity; Wastewater	
30231.1 In order to protect identified wetlands and coastal waters from sediment transfer or contamination from urban runoff during construction the following grading and erosion control practices shall be followed: (b) If grading occurs during the rainy season (November 1 though March 30), sediment traps, barriers, covers or other methods shall be used to reduce erosion and sedimentation.	**Consistent**. The project proponent/contractor would adhere to the requirements of this policy.
30231.1 (c) A site-specific erosion control and landscape plan shall be prepared for all new construction.	**Consistent.** The project proponent/contractor would adhere to the requirements of this policy.
30231.1(e) Excavated materials shall not be deposited or stored where the material can be washed away by high water or storm runoff.	**Consistent.** A portion of the soil excavated during grading would be used back onto the project site to raise the service road. The rest would be hauled away to a proper disposal location. Best management practices to avoid sedimentation would be

POLICY	ANALYSIS
	implemented; therefore the potential for erosion to occur would be minimal.
30231.1(f). Grading operations on campus shall be conducted so as to prevent damaging effects of sediment production and dust on the site and on adjoining properties.	**Consistent.** Erosion control measures would be included on project plans to prevent erosion from excavated areas.
30231.1(g) When vegetation must be removed on-Campus, the method shall be one that will minimize the erosive effects from the removal.	**Consistent.** Non-native landscaping and trees would be removed to construct the detention basins. Best management practices will be implemented to prevent erosion. Re-vegetation would take place as soon as possible after grading activities.
30231.1(h) Exposure of soil to erosion by removing vegetation shall be limited to the area required for construction operations. The construction area should be fenced to define project boundaries.	**Consistent.** Non-native landscaping and trees would be removed to construct the detention basins. Best management practices will be implemented to prevent erosion. Re-vegetation would take place as soon as possible after grading activities.
30231.1(j) Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction or other land disturbance activities on campus.	**Consistent.** Non-native landscaping and trees would be removed to construct the detention basins. Best management practices will be implemented to prevent erosion. Re-vegetation would take place as soon as possible after grading activities.
30231.1(n) Sediment basins, sediment traps, or similar sediment control measures shall be installed before extensive clearing and grading operations begin for campus development.	**Consistent.** The project proponent/contractor would adhere to this policy requirement where applicable.
30231.1(o) Neither wet concrete, nor slurries thereof, shall be permitted to enter any Campus wetland.	**Consistent.** The project proponent/contractor would adhere to this policy requirement where applicable.
30231.2(j). Minimize siltation of the Campus Lagoon.	**Consistent.** The project proponent/contractor would adhere to this policy requirement where applicable.
30231.2(k). Prohibit chemical wastes, sewage effluent or wastewaters from entering the Campus Lagoon.	**Consistent.** The project proponent/contractor would adhere to this policy.
30231.3 Drainage and runoff shall not adversely affect the Campus wetlands a. The near slopes along the edge of wetlands shall remain an undisturbed buffer area. b. Pollutants shall not be allowed to enter the area through drainage systems. c. Runoff into wetlands will not increase sediment from campus property.	**Consistent.** Implementation of mitigation measure GEO-1 and erosion control measures would prevent sediment from entering wetlands in the project area. The project will be consistent with this policy.
Diking, Filling or Dredging	
30233(a)1 Fills shall not encroach on Devereux Slough, Storke Campus Wetlands, Campus Lagoon or any other natural water courses or constructed channels on Campus.	**Consistent.** The proposed project would not require any construction activities within or adjacent to wetland areas.

c. Potential to conflict with conservation plans.

The Lagoon Management Plan may be considered a conservation plan for the environment surrounding the lagoon. The policies of the Lagoon Management Plan have been analyzed above. There would be *no impact*.

Impacts and Mitigation Measures

The project is consistent with all of the policies and no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.10 MINERAL RESOURCES Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

Setting

There are no substantial mineral resources or existing mineral resource recovery operations located on or near the UC Santa Barbara campus.

Checklist Responses

a-b. Potential to result in impacts to mineral resources. Because there are no substantial mineral resources or existing mineral resource recovery operations located on or near the UC Santa Barbara campus, the project would not limit the availability of mineral resources to the area or region, or interfere with mineral resource recovery operations. There would be *no impact*.

Impacts and Mitigation Measures

The Lagoon Restoration Project would not result in significant impacts to mineral resources. No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.11 NOISE				
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?				✓
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				✓
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				✓
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓

Setting

San Nicolas Area

The area between San Nicolas Hall and the Campus Lagoon has a low ambient noise level due to the surrounding land uses being residential and a park-like environment. Sensitive receptors in the area include residents of the dormitory.

Campus Point Area

Campus Point is a natural area whose ambient noise level includes ocean waves crashing, wind, and people talking as they recreate. There are no sensitive receptors in the area.

Lagoon Island Area

The Lagoon Island is a quiet park-like area with little human-related noise. There are no sensitive receptors in the area.

Checklist Responses

a-c. Potential to result in a long-term increase in noise. There would no additional traffic generated from the proposed project and there would not be an increase in traffic noise from the proposed project. Operation of project components such as restoration, the stairway at Campus Point~~,~~ and the labyrinth would not generate noise. This would not result in long-term generation of noise. There would be *no impact*.

d. Potential to result in a short-term increase in noise.

San Nicolas
Temporary noise from operation of heavy equipment machinery and removal of one large eucalyptus tree and groundborne vibration over a two week period may be generated as a result of the grading activities within the San Nicolas area. This could constitute a potentially significant short-term impact to residents of the San Nicolas dormitory. SN-Mitigation NOISE-1 and NOISE-2 would reduce potential impacts from construction noise to *less than significant with mitigation.*

Lagoon Island
Tree removal ***and*** removal of the asphalt pad and grading for installation of the labyrinth would increase ambient noise levels for a period of up to two days in the project vicinity above levels existing without the project. Additional removal of non-native trees would occur occasionally over a span of three to ten years. This short term impact would not be significant. Impacts would be *less than significant* and no mitigation measures would be required.

Campus Point
The installation of the staircase footings, removal of an existing asphalt pad, and potential tree removal activities may increase slightly ambient noise levels in the project vicinity above levels existing without the project for up to two weeks. This impact would be temporary. The close proximity of the noise from wave action is expected to be louder on most days than the construction. Impacts would be *less than significant* and no mitigation measures would be required.

e, f. Potential to result in airport-related noise impacts. The proposed project would not be subject to increased airport-related noise. There would be *no impact* from airport-related noise.

Impacts and Mitigation Measures

Impact NOISE 1 - 3: Grading, tree removal, and paving activities would increase ambient noise levels and groundborne vibration in the project vicinity above current levels for a period expected to be no longer than two weeks in duration. This could be a potentially significant short-term impact.

SN Mitigation-NOISE-1: To minimize the effects of construction-related noise impacts to surrounding buildings the timing of construction activities that would result in noise levels that would cause indoor noise levels to exceed standards (52 dbA indoor) (i.e. heavy equipment use for site grading and demolition, etc.) shall be coordinated with the Department Management Services Officers of affected Departments. The purpose of this coordination is to, if necessary, facilitate actions that will minimize the effects of peak construction noise impacts. These actions may include, but are not limited to: alerting adjacent campus building managers and/or occupants of the construction schedule, scheduling construction/demolition activities to occur when classes are not in session; temporarily rescheduling classes; or providing alternative meeting locations for classes that are adversely affected by construction activities.

Plan Requirements: Specifications to coordinate with Department managers shall be included in all contract documents and project plans. Construction contractors shall adhere to department scheduling constraints during the construction phase.

Timing: Specifications shall be included in all contract documents and plans prior to construction and scheduling construction to reduce construction phase noise impacts to the extent feasible.

MONITORING: The project manager from Design and Construction Services and/or CCBER shall periodically monitor construction site and verify that coordination has occurred with faculty and staff in surrounding buildings.

SN Mitigation-NOISE-2: The Design and Construction Services project manager and the Department Management Services Officers of affected Departments shall be provided with the name(s) and phone number(s) of the construction site foreman or other individuals who have the authority to respond to complaints regarding excessive noise or vibration levels.

Plan Requirements: Information shall be provided to the CCBER or Design and Construction Services project manager in contract specification documents. The project manager's contact information (name and phone number) shall be posted on-site to address complaints.

Timing: Information shall be provided prior to construction and be implemented during the construction phase.

MONITORING: The project manager from CCBER or Design and Construction Services shall ensure he/she has contact information prior to start of construction and that contact information is shared with the Department Management Services Officers.

Mitigation-NOISE-3: Stationary construction equipment that results in noise levels in excess 65 dBA shall be located as far away from noise sensitive receptors as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains or other similar devices.

Plan Requirements: The equipment area with appropriate acoustic shielding shall be designated on building and grading plans.

Timing: Equipment and shielding shall remain in the designated location throughout construction activities.

MONITORING: Project managers from Design and Construction Services and/or CCBER shall perform site inspections to ensure compliance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.12 POPULATION AND HOUSING				
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

Setting

There are seven residence halls located on the Main Campus of UCSB. These residence halls include Santa Cruz, De La Guerra, Ortega, Anacapa, Santa Rosa, San Miguel, and Manzanita Village. Six of these residence halls are located on south Main Campus in an area designated for use as Student Housing. The seventh, Manzanita Village is located on the far western side of the Main Campus in an area designated for housing. Approximately 2,700 of the 4,000 students housed in University owned or operated facilities live in the seven residence halls (UCSB 1990a).

No residences are located or proposed on the project site.

Checklist Responses

a. Potential to result in substantial growth inducing impacts.
The project would be served by utilities located on or adjacent to the project site and no new roadways would be required to provide local or regional access. The project would not result in an in-migration of people to the project area, campus, or region, and would not result in an increase in the demand for housing. Therefore, the proposed project would not result in significant growth inducing impacts. There would be *no impact*.

b, c. Displace a substantial number of houses or people.
The proposed project would not result in the removal of any residential units or the displacement of people. Therefore, no housing-related impacts would occur. There would be *no impact*.

Impacts and Mitigation Measures

The project would not result in significant impacts to housing or result in an increase in population on the campus or in the region. No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.13 PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				✓

Setting

Fire Protection.
UC Santa Barbara is located within the service area of the Santa Barbara County Fire Protection District, and fire prevention and suppression services are provided by the Santa Barbara County Fire Department. Fire Station No. 17 is located on-campus along Mesa Road. Fire Station No. 11 is located off-campus on Storke Road, approximately three miles west of the project site. There is a fire hydrant on Campus Point.

The review and approval of campus development plans for compliance with fire protection-related requirements is the responsibility of the UC Santa Barbara Fire Protection Division of the Environmental Health and Safety Department. An employee of the on-campus Fire Protection Division has been designated as a "Campus Fire Marshall" by the State Fire Marshall's Office. The review of proposed development plans, such as access and hydrant locations, is also coordinated with the County of Santa Barbara Fire Department.

Police Protection.
On-campus law enforcement services are provided by the UC Santa Barbara Police Department.

Schools.
UC Santa Barbara is located within the Goleta Union School District and the Santa Barbara High School District.

Checklist Responses

a. Result in substantial adverse impacts from new or altered facilities required for the following public services:

Fire Protection.
The project would not result in an increase in the enrollment of the University, would not result in an increase in the population of the project area, and would not result in an increase in the number of people located on the campus at any particular time. Therefore, the project would not result in an increase in the number of service

calls received by the Fire Department and would not require the expansion of existing fire facilities. There would be *no impact*.

Police Protection.
The project would not result in an increase in the number of people on campus or result in an increase in the number of service calls received by the campus Police Department and would not require the expansion of existing police facilities. Therefore, the proposed project would not result in a significant project-specific or cumulative law enforcement impact. There would be *no impact*.

Schools.
The project would not result in population growth with the potential to result in project-specific or cumulative impacts to existing school services and would not require the expansion of existing school facilities. There would be *no impact*.

Parks.
The project would not result in region-wide population growth with the potential to result in project-specific or cumulative impacts to existing park facilities and would not require the expansion of existing park facilities. There would be *no impact*.

Impacts and Mitigation Measures

The project would not result in significant public service impacts, or substantially contribute to cumulative impacts. No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.14 RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

Setting

Recreational facilities located on the project site are limited to trails used by students, faculty, and staff. Numerous athletic and recreational facilities are provided on the Main Campus and Storke Campus for use by faculty, staff, students and the public.

Checklist Responses

a, b. Result in a substantial impact to recreational facilities, or impacts from the development of new facilities. The Lagoon Restoration project would not result in any population growth or demand for recreational facilities. Therefore, the proposed project would not have the potential to result in significant project-specific or cumulative impacts to recreation facilities. There would be *no impact*.

Impacts and Mitigation Measures

The project would not result in significant project-specific recreation impacts, or substantially contribute to cumulative impacts, to on- or off-campus recreation facilities. No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.15 TRANSPORTATION/TRAFFIC				
Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?		✓		
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✓
e) Result in inadequate emergency access?		✓		
f) Result in inadequate parking capacity?				✓
g) Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				✓

Setting

San Nicolas

A paved one-lane road (approximately 8.5 to 12.5 feet wide) exists through the San Nicolas project area, which serves as a bike path, walking trail, and emergency access road.

Campus Point

A paved road exists near the northern portion of Campus Point, in-between the lagoon and Pacific Ocean. It serves as a main bike path, walking trail, and emergency access road.

Lagoon Island

A degraded paved road (approximately 8.5-12.5 feet in width) exists near the southern portion of Lagoon Island. It serves as a bike path, walking trail, and emergency access road.

Checklist Responses

a-b. Potential to increase traffic on roadways and intersections.
There would be a short term increase in traffic from construction vehicles and equipment entering and leaving the project site for grading at the San Nicolas project site. The project site is located along a service road which is not a major roadway on campus. Vehicles would park in a staging area near the proposed project site and service road and would not increase traffic on major campus roadways. The project may result in temporary closures of the service road over a two-week period while grading activities are being carried out. Impacts from construction traffic would be *less than significant*.

The proposed project would not increase long-term traffic on roadways or at intersections on campus because there would be no additional traffic trips as a result of the proposed project. There would be *no impact* and no mitigation measures are required.

c. Potential to affect air traffic patterns.
The proposed project would not affect air traffic patterns. There would be *no impact* and no mitigation measures are required.

d. Potential to increase traffic hazards from project design
The proposed project would not result in a change of traffic patterns on campus and would not create a safety hazard. There would be *no impact* and no mitigation measures are required.

e. Potential to result in inadequate emergency access.
Emergency access would not change from the existing condition as a result of the proposed project. The project may result in temporary closures of the service road over a two-week period while grading activities are being carried out. The road would be operable at full capacity after construction; therefore, there would be no long-term impacts. The area will be accessible by Channel Islands Road to the north and the Lagoon pathway from the east, and impacts are not expected to be significant, however implementation of Mitigation-TRF-1 impacts will reduce potential impacts to *less than significant with mitigation.*

f. Potential to result in inadequate parking capacity.
The project does not propose any changes to the campus' existing parking supply. The project would not result in an increase in the enrollment of the University, would not result in an increase in the population of the project area, and would not result in an increase in the number of people located on the campus at any particular time. Therefore, the project would not result in any additional demand for parking on the campus. There would be *no impact*.

g. Potential to result in conflicts with alternative transportation.
The proposed project would not conflict with alternative transportation programs or impact existing bicycle paths. There would be *no impact.*

Impacts and Mitigation Measures

Impact-TRF-1: The project may result in temporary closure of the service road over a two-week period while grading is occurring. Because road access will be available on both sides of the project, the short-term impacts are insignificant. The road would be operable at full capacity after construction; therefore, there would be no long-term impacts.

Mitigation-TRF-1: Coordination shall occur between the project manager and Campus Emergency Services at least one week prior to commencement of construction to identify feasible alternative routes for emergency vehicles. A traffic control person shall be onsite to direct traffic during the

heavy equipment phase of the project. Signage shall be posted at the project perimeters alerting pedestrians and bicyclists to the nature and anticipated duration of the project. With implementation of these measures, the impact would be less than significant.

Plan Requirements: Specifications shall be included in all contract documents and project plans.

Timing: Specifications shall be included in all contract documents and plans prior to construction and scheduling construction. Signs shall be posted prior to the commencement of construction activities.

MONITORING: Project managers from Design and Construction Services or CCBER shall perform site inspections to ensure compliance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.16 UTILITIES AND SERVICE SYSTEMS				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				✓
g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?				✓

Setting

The Goleta Sanitary District provides wastewater treatment service for UC Santa Barbara and water service is provided by the Goleta Water District. Solid waste generated on campus is collected by a local waste hauler. Proposed activities in the Lagoon Management Area as directed in the Lagoon Management Plan would not require wastewater services or solid waste collection. Minimal use of potable water will be required for the initial establishment of plants. Temporary irrigation would be established from a campus fire hydrant on Campus Point, irrigation lines at Manzanita Village and Facilities irrigation lines along Channel Islands Road. New below-ground water lines would not be installed.

Checklist Responses

a. Exceed Regional Water Quality Control Board (RWQCB) wastewater treatment requirements.
The project would not generate any wastewater. Therefore, the project would not have the potential to result in exceedances in wastewater treatment requirements. There would be *no impact*.

b. Potential to require expanded water or wastewater facilities.
As described in the *Project Description*, minor changes in the configuration of existing irrigation lines would be required to irrigate proposed landscaping at the San Nicolas site and no irrigation is planned at Lagoon Island

or Campus Point. The proposed project would not require the construction or expansion of any water or wastewater facilities. There would be *no impact*.

c. Potential to require expanded storm water facilities.
The project would construct stormwater detention pools at the San Nicolas site that would total about one acre in size. These pools would detain and filter water resulting in a *beneficial impact*.

d. Potential to impact available water sources.
As described in the *Project Description*, minor changes in the configuration of existing irrigation lines would be required to irrigate proposed landscaping at the San Nicolas site and no irrigation is planned at Lagoon Island or Campus Point. The proposed project would not result in an overall increase in landscaped area. There would be *no impact*.

e, f. Potential impacts to solid waste management facilities.
The proposed project would not result in increased solid waste generation. There would be *no impact*.

Impacts and Mitigation Measures

The project would not result in significant project-specific impacts to utilities and service systems, or substantially contribute to cumulative impacts, to on- or off-campus utilities and service systems. No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6.17 MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b) Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				✓
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			✓	

a. The project involves creation of bioswales and back dune swale and would require some work in sensitive areas. Mitigation Measures to prevent erosion and sedimentation into sensitive areas (GEO-1) would be implemented reducing potential impacts to a *less than significant* level. The project would result in the removal of (how many?) non-native trees. If an active nest were located in the trees at the start of construction activities, the project would have the potential to result in significant direct and/or indirect impacts to the birds or nests. With implementation of BIO-1, potential impacts to nesting birds would be reduced to a *less than significant* level.

A known archeological site is located in the vicinity of the Campus Point project area. Implementation of CUL-1 through CUL-5 would reduce potential impacts to *less than significant*.

b. The proposed project would not generate additional campus-wide wastewater or require additional water services and would not result in cumulative impacts.

The proposed project would not generate an additional amount of traffic. Therefore, it would not contribute a substantial amount of traffic to off-campus roadways and intersections that are projected to operate at unacceptable levels of service under cumulative conditions.

The proposed project would not result in a fire protection impact, and would not result in a substantial increase in on-campus population. Therefore, the project would not substantially contribute to a cumulative fire protection impact.

c. The proposed project would not result in significant impacts regarding air quality, hazards and hazardous materials, noise, and traffic safety.

6.18 FISH & GAME DETERMINATION

Based on consultation with the California Department of Fish and Game, there is no evidence that the project has a potential for a change that would adversely affect wildlife resources or the habitat which wildlife depends.

__ Yes (DFG Determination of No Effect)

✓ No (Pay fee)

7.0 MITIGATION MONITORING REPORTING PROGRAM

8.0 REFERENCES & PREPARERS

8.1 REFERENCES

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8.2 PREPARERS

Patricia Carbajales, Geographic Information Specialist
Office of Campus Planning and Design
University of California, Santa Barbara

Condor Environmental Planning Services, Inc.
Elihu Gevirtz, AICP
Jennifer Jackson

Shari Hammond, Senior Planner
Office of Campus Planning and Design
University of California, Santa Barbara

Van Atta Associates, Inc.
Karen McConaghy

APPENDIX A

Descriptions of Biological Communities

APPENDIX 2

UCSB Lagoon Management Plan
(Excerpt)

Description of Existing Biological Resources

BIOTIC FACTORS

The biotic resources of the Campus Lagoon management area have been investigated to varying degrees by MacKay (1992), Anderson et al. (1989), Page (1979), UCSB (1975, 1979, 1990), Lehman (1991 cited in MacKay 1992), Wenner (1969 cited in MacKay 1992), and Bothwell (1971) and through a reconnaissance-level field visit associated with this project. These investigations are summarized in the following sections; no original investigations of the management area were conducted to prepare the Campus Lagoon management plan.

The biotic resources are a compilation of the area's flora (plant species), fauna (birds, mammals, reptiles and amphibians, fish, and terrestrial and aquatic invertebrates), and the plant communities they inhabit. Habitat is the combination of physical and organic characteristics of a site that are used by plants and wildlife. Particular attention is given to special-status species, including rare and endangered species, as well as other sensitive taxa.

Historical Overview of Flora and Fauna

The history of the flora and fauna of the management area is based on literature, maps, and aerial photographs of the management area. Originally, the Campus Lagoon area consisted of a natural, elevated (35-45 feet msl) marine terrace dominated by southern needlegrass grassland (Magney 1992, MacKay 1992). The slopes away from the ocean were likely dominated by coyote brush scrub. The ocean bluffs were vegetated by coastal bluff scrub and the sand dunes were stabilized by coastal dune scrub. The lagoon was a seasonal brackish marsh that periodically dried out to create salt and mud flats. Seawater occasionally entered from waves overtopping the dunes at the "mouths" of the lagoon during high surf events.

The vegetation and wildlife habitats of the marine terrace (mesa top) was first significantly altered during the 1880s by clearing activities to grow agricultural crops (MacKay 1992). Asphaltum mining occurred shortly afterwards, primarily near what is now the Commencement Green. Agriculture was largely displaced during the mid-1940s by the construction of a military installation; some of these buildings are still used today by UCSB. A portion of the eastern arm of the lagoon was filled in during construction of the military base in the 1940s, and this is now the site of the Pearl Chase Memorial Garden (MacKay 1992). Major ornamental planting throughout the area occurred during 1962-1963 as part of UCSB's planting program (MacKay 1992).

As part of a student research project, a floating platform was installed in the eastern arm of the lagoon to monitor use by birds during the 1970s. The platform was removed in the early 1990s.

Flora

The flora of the management area consists of herbaceous annual and perennial herbs and grasses, annual aquatic herbs, long-lived perennial herbs and shrubs, and trees. A total of 124 species of vascular plants were recorded from the management area, 45 (36%) of which are native, 39 (32%) are naturalized non-native species, and 40 (32%) are cultivated. A list of all vascular plants observed or reported (MacKay 1992) from the management area is provided in Appendix A. Appendix A provides each plant's scientific name according to Hickman (1993), common name, growth habit (annual or perennial herb, grass, or vine; shrub; or tree), wetland indicator status according to Reed (1988), and plant family.

Invasive Exotic Plants

Invasive exotic plants are non-native species that have become established in natural habitats and are able to compete effectively with native plant species. When this takes place, less area is available to native plant species that generally have higher value to wildlife of the area. Of the 39 naturalized non-native species reported in the management area (excluding cultivated species), nine species are considered to be invasive exotic plants that represent threats to the natural environment. These are pampas grass (*Cortedaria atacamensis*), giant reed (*Arundo donax*), Kikuyu grass (*Pennisetum clandestinum*), Hottentot fig (*Carpobrotus edulis*), sea fig (*Carpobrotus chilensis*), Bermuda grass (*Cynodon dactylon*), myoporum (*Myoporum laetum*), New Zealand spinach (*Tetragonia tetragonoides*), and Australian saltbush (*Atriplex semibaccata*).

Fauna

The fauna of the management area consist of resident, migratory, and visiting birds, mammals, reptiles and amphibians, fish, and terrestrial and aquatic invertebrates. A list of fauna observed in the management area is included in Appendix B. The common and scientific names of wildlife species mentioned in the text are also listed in Appendix B. In addition, MacKay (1992) provides an extensive list of wildlife that occur in the Campus Lagoon management area.

Birds

Birds that use the management area include residents (birds that live onsite year round), migratory birds (those that live onsite only seasonally), and visitors (birds that visit the site only by chance). Resident birds in the management area or immediate vicinity include savannah sparrow, killdeer, American coot, northern harrier, American kestrel, great horned owl, and marsh wren. Migratory birds observed in the management area include grebes, cormorants, herons, egrets, geese, ducks, black-shouldered kite, hawks, California least tern, western snowy plover and other plovers, gulls, California brown pelican, and numerous shorebirds. Many species of birds have been observed in the region of the Campus Lagoon (MacKay 1992).

Mammals

Mammals known to occur in the management area include raccoon, Virginia opossum, bats, shrews, mice, pocket mice, California ground squirrel, rats, gray fox, desert cottontail, black-tailed hare, Botta's pocket gopher, and skunks, as well as many others in the Campus Lagoon region (MacKay 1992).

Amphibians and Reptiles

Amphibians such as the western toad and Pacific chorus frog (formerly called Pacific treefrog) breed in freshwater habitats and wetlands and use adjacent uplands for non-breeding habitat (e.g., foraging and hibernating). These species probably used the lagoon for breeding habitat before it was filled with seawater. The addition of salt water to the lagoon reduced the habitat quality for amphibians.

Reptiles use most of the terrestrial and wetland habitats in the management area, although habitat quality for reptiles has decreased because of human activity and habitat alteration in the management area.

Amphibians and reptiles known to occur in the management area include side-blotched lizard, western fence lizard, southern alligator lizard, San Diego coast horned lizard, western rattlesnake, gopher snake, ringneck snake, western toad, Pacific chorus frog, and bullfrog.

Fish

Fish known to occur in the management area historically include mosquitofish, goldfish, and longjaw mudsucker. Since seawater has been introduced to the lagoon, only saltwater species now occur in the lagoon, such as topsmelt, opaleye, and staghorn sculpin. The status of these species in the lagoon is not well understood at this time. Although the lagoon provided habitat for tidewater goby in the past, it is doubtful that this species would still occur there because the lagoon's salinity exceeds this species' requirements.

Invertebrates

Invertebrates occurring in the management area consist of many insects, arachnids, isopods, mollusks, brine shrimp, and amphipods; however, no general surveys for invertebrates have been conducted. Page (1979) identified an aquatic snail (*Tyronia imitator*) as increasing in density as seawater input increased, as well as introductions to the lagoon by the leptostracan crustacean (*Nebalia*) and the mud crab (*Hemigrapsus oregonensis*) from the Marine Science aquaria.

Terrestrial Invertebrates. Invertebrates are common in all terrestrial habitats in the management area. Because of the amount of habitat alteration and human disturbance in the management area, many of the invertebrates present there are introduced species.

Aquatic Invertebrates. The lagoon supports many species of aquatic invertebrates. Because the lagoon has been extensively disturbed by human activities, many of the aquatic

invertebrates in the lagoon are adapted to or depend on disturbed habitats. Many of these aquatic invertebrates are not native to the lagoon, such as the bubble-shell snail *(Haminoea vivesceus)*, horn snail (*Cerithdea californica*), mud crab *(Henigrapsus oregonensis)*, rock crab *(Pachygrapsis crassipes)*, and bay mussel *(Mytilus edulis)*.

Plant Communities and Wildlife Habitats

The plant communities and wildlife habitats of the management area are listed in Table 2-1 and are illustrated in Figure 2-6 as redrawn from MacKay (1992). Also, Figure 2-6 indicates the vegetation habitat types and locations of rare plant populations. The plant community types generally follow the recently developed California Native Plant Society (CNPS) classification system (Sawyer in press), which has been adopted for use by the DFG (Gibbons pers. comm.), U.S. Forest Service (Shevock pers. comm.), and other state and federal agencies.

Brief descriptions of the plant communities and habitat types present in the management area are provided below, including the characteristic plants and animals that inhabit them.

Coastal Strand

This habitat comprises foredunes and sand accumulations with little or no vegetation. A sparse cover of European sea rocket (*Cakile maritima*) is the only vegetation occurring on this habitat type in the management area. Coastal strand is found along the entire length of the oceanfront in the management area; however, much of the sand migrates offshore during winter and returns each summer, as a result of the seasonal changes in the longshore current.

Coastal strand provides habitat for various wildlife species, primarily invertebrates. The upper intertidal zone at the water's edge contains sand hoppers (*Orchestodea* spp.), sand crab (*Emerita analoga*), bloodworm (*Euzonas mucronata*), purple olive snail (*Olivella biplicata*), Pismo clam (*Tivela stultorum*), and shore flies (*Ephydra regina, E. riparia*). The drier zones harbor tiger beetles, solitary bees and wasps, and spiders.

Many species of shorebirds feed on the invertebrates inhabiting the coastal strand habitat in the management area (MacKay 1992). Shorebirds observed in the management area include the killdeer, semipalmated plover, black-bellied plover, surfbird, black turnstone, whimbrel, western sandpiper, sanderling, and marbled godwit (Appendix B).

Because of the high level of human disturbance along the beach areas, shorebirds are unlikely to nest successfully along the coastal strand. Also, human disturbance disrupts the feeding and roosting activities of shorebirds in the management area, which reduces the value of the area for these animals. The management area probably received higher levels of use (nesting, feeding, and roosting) by shorebirds before the area was developed. The introduction of non-native plants also reduces habitat quality for coastal invertebrates, amphibians and reptiles, and small mammals.

Coastal strand habitats are fairly common along the southern coast of California; however, many sandy beach areas have eroded severely because the sand supply has been largely interrupted by the construction of dams for reservoirs on the larger streams and rivers upcoast, such as the Santa Ynez and Santa Maria Rivers. Human-made obstructions to littoral drift, such as the wharf at Santa Barbara Marina, have caused significant erosion of sandy beaches downcoast of the structures (Penfield 1960 cited in MacKay 1992); however, obstructions do not affect the beach in the management area.

Sand-Verbena - Beach Bursage Series

Sand-verbena - beach bursage series (includes southern foredunes [Holland 1986], coastal dune scrub [MacKay 1992], and ice plant series [Sawyer in press]) in the management area consists of psammophylic (sand-loving) perennial herbs and shrubs growing in eolian (windblown) sand and has a relatively depauperate flora, comprising whiteleaf saltbush (*Atriplex leucophylla*); California sagebrush (*Artemisia californica*); beach bursage (*Ambrosia chamissonis*); European sea rocket; and the invasive exotics Hottentot fig, sea fig, Australian

saltbush, giant reed, and New Zealand spinach. Also, this series at the lagoon contains red sand-verbena, a special-status species. Many of these plants stabilize eolian sand and help establish sand dunes by their presence. This plant community is found between the sandy beach of the coastal strand and the coastal bluffs.

The introduction of non-native vegetation (i.e., Hottentot fig, sea fig, Australian saltbush, and New Zealand spinach) has changed the wildlife species composition and wildlife use of the sand-verbena-beach bursage series.

Human disturbance has changed the character of this sensitive habitat. Foot and vehicle (i.e., bicycle) traffic, as well as road and building construction (mostly during World War II), has fragmented the vegetation, increased the area of habitat edge, compacted the soil, disturbed the native vegetation, and provided pathways and openings for invasive exotic plants to become established.

The sand-verbena - beach bursage series historically provided habitat for the legless lizard, western fence lizard, gopher snake, and southern alligator lizard (UCSB 1979). These species have been extirpated from the area by habitat alteration and human disturbance. Sand-verbena - beach bursage series, however, still provides habitat to the side-blotched lizard, ringneck snake, savannah sparrow, white-crowned sparrow, house finch, and desert cottontail (Appendix B) and numerous invertebrates.

Sand-verbena - beach bursage series (under the name southern foredunes) is considered a rare plant community throughout the California coast (Natural Diversity Data Base 1987), particularly on the south coast, as a result of substantial urban coastal development. Remaining sand-verbena - beach bursage series vegetation is routinely affected by humans trampling it. Invasive exotic plants have severely altered the flora of this habitat by invading sand dune areas and out competing native species. Hottentot fig and sea fig are the most prevalent exotic plants on the dunes in the lagoon management area.

California Sagebrush Series

California sagebrush series (southern coastal bluff scrub [Holland 1986], coastal bluff scrub [MacKay 1992]) occurs at localized sites along the California coast. This community is dominated by woody and succulent shrubs up to 6 feet (2 meters) tall. In the management area, California sagebrush series comprises California sagebrush, bush lupine (*Lupinus arboreus*), purple-bracted morning-glory (*Calystegia macrostegia* ssp. *cyclostegia*), coyote brush (*Baccharis pilularis*), Brewer's saltbush (*Atriplex lentiformis* var. *breweri*), tiny primrose (*Camissonia micrantha*), California bush sunflower (*Encelia californica*), and non-native wild radish (*Raphanus sativus*) and field mustard (*Brassica rapa*). This plant community occurs along the bluffs and coastal portions of the mesa top of the management area.

The California sagebrush series is severely affected by human activity (e.g., bicycles and pedestrians), which reduces the series' wildlife value, and is considered a sensitive community by the Natural Diversity Data Base (1987) under the name of southern coastal bluff scrub (Holland 1986). Remaining California sagebrush series vegetation is routinely affected by humans trampling it and by mass wasting of the bluffs from pounding surf. Invasive exotic plants have significantly altered the flora of this habitat by invading bluff areas and out competing native species, extirpating some native species from the management area. Hottentot fig, sea fig, and wild radish are the most prevalent exotic plants on the bluffs in the management area.

The top of the bluff on Lagoon Island attracts double-crested cormorant, migrating land birds, and wintering sparrows. California vole, gopher snake, western rattlesnake, western fence lizard, black-tailed hare, numerous insects and arachnids, and Pacific chorus frog also occur on the bluffs.

Coyote Brush Series

Coyote brush series scrub (coyote brush scrub [Holland 1986], coastal sage scrub [Munz and Keck 1973]) habitat consists of schlerophylos (having small, thick, drought-resistant leaves) evergreen and drought-deciduous shrubs and perennial and annual herbs and grasses that occupy loamy to clayey soils of level or moderately sloping terrain. The dominant scrub is coyote brush, which often occurs in areas that have been disturbed in the past. Other plants commonly associated with the coyote brush series in the management area are California sagebrush, bush lupine, wild radish, field mustard, and plants from the grassland community. Coyote brush series is a component of the coastal sage scrub complex and is relatively common in the south coast region. Several ornamental plantings occur in this habitat type in the management area.

Coyote brush series occurs primarily on Lagoon Island and Goleta Point and intergrades with California sagebrush series on the bluffs and steep slopes on the ocean side of the area, as well as with grassland habitats on flatter terrain with deeper soils, such as on the mesa tops of Lagoon Island and Goleta Point. The now-developed portions of the campus were grassland before the 1880s.

The dead Monterey cypress on the east bluff of Lagoon Island in coyote brush series areas is an important roosting site for snowy egrets (MacKay 1992). Black-shouldered kite formerly nested on top of the Lagoon Island mesa. In general, wildlife species composition and wildlife use of coyote brush is similar to that of California sagebrush.

California Annual Grassland Series

Grassland habitats in the management area consist of two types, California annual grassland series (Sawyer in press) and southern coastal needlegrass grassland (Magney 1992), which is included in the purple needlegrass series by Sawyer (in press). California annual grassland series consists of annual and perennial grasses and herbs less than one meter high with a continuous to open ground cover dominated by seasonal annual herbs and grasses. In the lagoon management area, California annual grassland series is composed of wild oat (*Avena fatua*), fiddleneck (*Amsinckia spectabilis*), Australian saltbush, field mustard, brome grasses (*Bromus* spp.), tocalote (*Centaurea melitensis*), chenopods (*Chenopodium* spp.), gaura (*Gaura* spp.), bicolored everlasting (*Gnaphalium bicolor*), tarplants (*Hemizonia* spp.), barleys (*Hordeum* spp.), goldfields (*Lasthenia californica*), peppergrasses (*Lepidium* spp.), lupines (*Lupinus* spp.), plantains (*Plantago* spp.), wild radish, and purple vetch (*Vicia benghalensis*) (MacKay 1992). Also, two special-status plant species, Coulter's saltbush and southern tarplant, occur in a portion of this series habitat in the lagoon management area.

California annual grassland series and southern coastal needlegrass grassland occur in patches on the mesa tops of Lagoon Island, Goleta Point (in one area), and the southeastern and central portions of the west bluff area (Figure 2-6).

The southern coastal needlegrass grassland consists of perennial and annual grasses and herbs, dominated by perennial bunchgrasses such as purple needlegrass (*Nassella [Stipa] pulchra*). Other common and characteristic plants of southern coastal needlegrass grassland in the management area include brome grasses, everlastings (*Gnaphalium* spp.), fascicled tarplant (*Hemizonia fasciculata*), and slender fescue (*Vulpia bromoides*). This community occurs as small remnant patches in the grassland areas of the management area and intergrades with California annual grassland series and coyote brush series.

Because of the habitat alteration and human disturbance in the management area, the grasslands provide relatively low-quality wildlife habitat. Common wildlife species tend to occupy grassland habitats in the management area, including the red-tailed hawk, American kestrel, western meadowlark, Botta's pocket gopher, California ground squirrel, California vole, gopher snake, and gray fox.

Pickleweed Series

Pickleweed series (Sawyer in press) marsh (also called southern coastal salt marsh [Holland 1986]) are found in bays, lagoons, and estuaries along the coast and is a type of coastal wetland. The community is dominated by perennial, herbaceous to suffrutescent (shrub-like) plants that are halophytic (salt-tolerant) and hydrophytic (water-loving). Plant species of the pickleweed series in the lagoon area include pickleweed (*Salicornia virginica*), saltgrass (*Distichlis spicata*), fleshy jaumea (*Jaumea carnosa*), alkali heath (*Frankenia salina*), fat hen (*Atriplex patula*), marsh spurry (*Spergularia marina*), and horned sea-blite (*Suaeda calceoliformis*). Pickleweed series covers small portions of the management area along the margins of the lagoon, primarily along its north edge. This habitat was likely always a part of the lagoon's ecosystem; however, the discharge of seawater from the marine laboratory caused the extirpation of the bulrushes (as a result of increased salinity) and likely restricted the pickleweed series to its current location (Ferren pers. comm.).

Pickleweed series vegetation is susceptible to damage by human trampling, which has occurred fairly extensively in the area adjacent to the Commencement Green and near the University Center.

Pickleweed habitat is considered important for many wetland-dependent wildlife species. Pickleweed is important foraging habitat for great blue heron, snowy egret, great egret, Virginia rail, sora, and northern harrier. These habitats are also important breeding habitats for the Virginia rail, sora, and harvest mice. Saltgrass, a common native grass in pickleweed series habitat, is the host plant to the wandering (salt marsh) skipper (*Panoquina errans*), a special-status invertebrate that occurs in the Goleta area, such as at Devereux Slough (Isla Vista) and downcoast at Ormond Beach in Ventura County (BioSystems Analysis 1993).

Ditchgrass Series and Open Water

The ditchgrass series community is characterized by an exclusive, sparse cover of ditchgrass (*Ruppia maritima*), a submergent aquatic vascular plant (Sawyer in press). This community occurs in the lagoon, with ditchgrass growing in the muds at the bottom of the lagoon. Open water areas are occupied to varying densities by free-floating aquatic phytoplankton and algae. The lagoon historically was euryhaline (exhibited fluctuating salinity) as a result of seasonal evaporation of the ponded water. This natural phenomenon was altered in 1976 when a relatively stable inflow of seawater to the lagoon began largely for aesthetic reasons. (MacKay 1992.)

These conditions provide habitat for dinoflagellates (*Gyrodinium* spp.), diatoms (*Cyclotella* and *Nitzschia* spp.), a mat-forming green algae (*Enteromorpha intestinalis*), blue-green algae (*Oscillatoria* spp.), as well as ditchgrass.

The lagoon water is habitat to several aquatic invertebrates, including rotifers (*Pedalaria* spp.), hydroids (*Obelia* spp.), medusae (*Goniomnemus* spp.), copepods (*Calanodia* and *Harpactoida*), protozoans (*Zoothamnium* spp.), free-swimming amphipod (*Ansiogammarus confervicolus*), ostricods, brine shrimp, beetles (*Tropisternus salsamentus* and *Hydrobius* spp.), water boatman (*Trichocorixa reticulata*), and shore flies (*Ephydra regina*, *E. riparia*). The lagoon bottom supports benthic invertebrates such as polychaete worms (*Polydora nuchalis* and *Capitella capitata*); tube-building amphipod (*Corophium insidiosum*); and, before 1976, California brackishwater snail (*Mimic tryonia*).

Numerous wading birds and shorebirds, including American avocet, sanderling, gulls, willet, snowy egret, and black-necked stilt, forage in the lagoon and along its margins. Killdeer use the lagoon margins for nesting. Large numbers of wintering waterfowl also use the lagoon as roosting and foraging habitat. Logs from downed trees provide roost sites for pelicans, gulls, terns, cormorants, and herons.

The change from an evaporative salt flat subject to occasional tidal action to a permanent, artificial, seawater lagoon has caused a significant shift in the types of plants and animals that now inhabit or use it. Whereas, historically, the lagoon provided varying seasonal habitats from fresh to hypersaline open water, as well as salt and mud flats when the water evaporated, it now consists of a permanently flooded saltwater lagoon that depends entirely on active human management (i.e., seawater discharge from the marine laboratory).

The southeastern portion of the lagoon's east arm has a sandy and clay shoreline that is used frequently by shorebirds and wading birds and is relatively protected from human disturbance. This area has relatively high value to wildlife.

Ornamental Landscaping

Ornamental landscaping consists of groupings of planted trees, shrubs, and groundcovers and comprises typical and commonly used and unusual ornamental horticulture species.

Turfgrass habitat in the management area consists of ornamental lawn grasses (e.g., bluegrass *[Poa]*, ryegrass *[Elymus]*, and bermuda grass *[Cynodon]*) and scattered ornamental trees and shrubs, such as Moreton Bay fig (*Ficus macrophylla*). Native hydrophytes, such as Mexican rush (*Juncus mexicanus*), also occur in the lawn at the Commencement Green, especially toward the lagoon margin.

Ornamental plantings are scattered throughout the management area, forming "unnatural" communities. Many of these plantings occur among natural communities, such as those on Lagoon Island. These plantings include Monterey cypress (*Cyperus macrocarpa*), Torrey pine (*Pinus torreyana*), myoporum (*Myoporum laetum*), melaleucas (*Melaleuca* spp.), hakeas (*Hakea* spp.), Catalina Island cherry (*Prunus lyoni*), paper flower bougainvillea (*Bougainvillea glabra*), Cootamunda wattle (*Acacia longifolia*), figs (*Ficus* spp.), eucalypts (gums, ironbarks, beeches, and mallees) (*Eucalyptus* spp.), and Peruvian pepper tree (*Schinus molle*). Many of the plantings are no longer actively cultivated, such as on Lagoon Island, but have persisted. Many of the ornamental plants are well adapted to the Mediterranean climate of southern California, having originated from similar climates. The many Australian tree and shrub species have high value from a horticultural perspective, as suggested by the long list of eucalypts and other members of the Myrtaceae family in Appendix A.

The eucalyptus forest (eucalyptus series [Sawyer in press]) located in the North Margin management zone was planted during the 1930s as a windbreak to protect agricultural crops from continual onshore sea breezes (MacKay 1992). The dominant tree is the Tasmanian blue gum (*Eucalyptus globulus*), a native of Australia. Understory vegetation is almost entirely lacking as a result of allelopathic chemicals emitted from the leaves and bark of many species of eucalyptus, such as Tasmanian blue gum.

Currently, the eucalyptus forest is being thinned of dead or unhealthy trees and limbs for safety and aesthetic reasons. These trees also pose a serious fire hazard, especially where they overhang or grow near buildings.

The Monterey cypress trees on Lagoon Island were reported to be planted in the 1920s (MacKay 1992); however, no trees are apparent on the 1928 aerial photograph of the area (Figure 2-7). Nearly all the flat terrain was in agriculture in 1928, with the Tasmanian blue gum windrows planted in the 1930s. By 1954 (Figure 2-8), the eucalyptus grove had matured and additional trees, possibly Monterey cypress, appear to be mature trees on Lagoon Island and Goleta Point; however, no large shrubs or trees are visible on the mesa tops of Lagoon Island, West Lagoon Park, or Goleta Point Management Zones. Most of the other ornamental plantings occurred during 1962-1963 as part of UCSB's planting program (MacKay 1992) and are visible on the 1975 aerial photograph (Figure 2-9).

Overall, eucalyptus groves are considered low-quality wildlife habitats. In California, eucalyptus groves generally support fewer wildlife species than the natural plant communities surrounding them. Despite this, eucalyptus trees have high value for certain wildlife species. Eucalyptus flowers provide nectar during the winter for hummingbirds, migratory monarch butterflies, and other insects. Eucalyptus flowers support insects that are eaten by insectivorous birds, including Anna's hummingbird, yellow-rumped warbler, and ruby-crowned kinglet.

Eucalyptus trees in the management area are important as roosts, perches, and nest sites for various bird species, including great blue heron, great egret, black-crowned night-heron, red-tailed hawk, and great horned owl; however, any tree species would likely be suitable.

Barren Habitats

Barren habitats are generally devoid of vegetation, usually because the area was recently disturbed or is disturbed continually, as along trails. A few weedy plant species may occur sparsely in barren portions of the management area.

Barren areas are considered low-quality wildlife habitats because they lack cover and foraging habitat needed by most wildlife. Barren habitats are used, however, by many common wildlife species, such as the gopher snake, Botta's pocket gopher, black-tailed hare, gray fox, California ground squirrel, red-tailed hawk, and mourning dove.

Sensitive and Special-Status Species

Special-status species are plants and wildlife species that meet the definitions provided below and warrant special management attention in the development of this management plan. Although the management area is potential habitat for a large number of special-status species, many of which have been treated in previous reports (MacKay 1992), only those taxa known to occur at or immediately adjacent to the Campus Lagoon management area are described in the following sections.

APPENDIX B

Plant Palettes

Plant List for Habitat Restoration Projects

Coastal Sage Scrub

Scientific Name	Common Name	% Cover
Artemisia californica	Coastal Sagebrush	5
Aster subululatus	Slender Aster	1
Encelia californica	Coast Sunflower	18
Eriogonum parvifolium	Coast Buckwheat	20
Eriophyllum confertiflorum	Golden Yarrow	2
Eschscholzia californica	California Poppy	5
Gnaphalium californicum	Green Everlasting	1
Isocoma menziesii	Coast Goldenbush	10
Leymus condensatus	Giant Wild Rye	2
Lotus scoparius	Deerweed	10
Lupinus arboreus	Bush Lupine	2
Lupinus bicolor	Annual Lupine	2
Mimulus aurantiacus	Bush Monkeyflower	1
Nassella pulchra	Purple Needlegrass	10
Phacelia ramosissima	Rambling Phacelia	2
Scrophularia californica	California Figwort	2
Verbena lasiostachys	Weedy Verbena	2

Stormwater Filtration Marsh

Scientific Name	Common Name	% Cover
Anemopsis californica	Yerba Mansa	5
Bolboeschoenus maritimus	Prairie Bulrush	13
Cyperus eragrostis	Nutsedge	5
Eleocharis macrostachya	Common Spikerush	10
Euthamia occidentalis	Western Goldenrod	2
Juncus acutus	Spiny Rush	5
Juncus phaeocephalus	Brown-headed Rush	5
Juncus textilis	Indian Rush	15
Schoenoplectus californica	California bulrush	40

Reference sites: Manzanita Village bioswales

Plant List for Habitat Restoration Projects

Salt Marsh

Scientific Name	Common Namne	% Cover
Anemopsis californica	Yerba Mansa	2
Atriplex californica	California Saltbush	3
Atriplex triangularis	Spearscale	3
Atriplex watsonii	Matscale	3
Distichlis spicata	Salt Grass	15
Frankenia salina*	Alkali Heath	8
Jaumea carnosa	Jaumea	10
Juncus acutus	Spiny Rush	2
Limonium californicum	Marsh Rosemary	2
Monanthechloe littoralis	Salt Cedar	3
Salicornia virginica*	Pickleweed	35
Suaeda calceoliformis	Horned Sea Blite	5

** NOTE: provides important wildlife habitat*

Reference: current vegetation and adjacent lagoon edge vegetation

Coastal Sage Scrub - *Rhus series*

Scientific Names	Common Names	% Cover
Artemisia californica	Coastal Sagebrush	10
Baccharis douglasii	Sticky Baccharis	5
Encelia californica	Coast Sunflower	5
Epilobium canum	California Fuschia	10
Heteromeles arbutifolia	Toyon	10
Lonicera subspicata	Santa Barbara Honeysuckle	10
Malacothamnus fasciculatus	Chaparral Mallow	10
Phacelia ramossisima	Rambling Phacelia	5
Rhus integrifolia	Lemonade Berry	30
Rosa californica	California Rose	4
Salvia leucophylla	Purple Sage	20
Salvia mellifera	Black Sage	10
Scrophularia californica	California Figwort	5
Verbena lasiostachys	Weedy Verbena	2

Reference sites: San Marcos Foothills slopes and what is currently growing there successfully

In addition to marsh and sage scrub plantings, this area will also contain the following willow species:

Plant List for Habitat Restoration Projects

Willows

Scientific Name	Common Name	% Cover
Salix exigua	Sandbar Willow	--
Salix lasiolepis	Arroyo Willow	--

Riparian Woodland

Scientific Name	Common Name	# Trees
Alnus rhombifolia	Alder	3
Artemesia douglasiana	Mugwort	--
Platanus racemosa	Western Sycamore	3
Sambucus mexicana	Elderberry	5
Populus balsamifera ssp. trichoca	Black Cottonwood	1

Coastal Seep

Scientifc Name	Common Name	% Cover
Baccharis douglasii	Sticky Baccharis	15
Baccharis salicifolia	Mule Fat	15
Leymus triticoides	Alkali Rye	5
Lonicera subspicata	Santa Barbara Honeysuckle	5
Platanus racemosa	Western Sycamore	10
Rhus integrifolia	Lemonade Berry	10
Salix hindsiana	Willow	10
Salix lasiolepis	Arroyo Willow	10
Sambucus mexicana	Elderberry	20

This area also includes species from the Coastal Sage Scrub and Salt Marsh habitats

Reference sites: other seeps around lagoon (e.g. near commencement green and San Nicholas wetland)

Plant List for Habitat Restoration Projects

Sand Dune & Coastal Sage

Scientific Name	Common Name	% Cover
Abronia maritima**	Red Sand Verbena	8
Abronia umbellata	Pink Sand Verbena	8
Ambrosia chamissonis	Beachbur	25
Amsinkia spectabilis	Seaside FIddleneck	2
Artemisia californica	Coastal Sagebrush	5
Atriplex californica	California Saltbush	5
Atriplex lentiformis	Quail Bush	2
Atriplex leucophylla	Dune Saltbush	10
Camissonia cheiranthifolia	Beach Evening Primrose	30
Cressa truxillensis	Alkali Weed	2
Deinandra increscens var increscens	no common name	6
Distichlis spicata	Salt Grass	8
Encelia californica	Coast Sunflower	5
Eriogonum parvifolium	Coast buckwheat	5
Eriophyllum confertiflorum	Golden yarrow	5
Eschscholzia californica	California poppy	15
Frankenia salina	Alkali heath	5
Gnaphalium californicum	Green Everlasting	5
Isocoma menziesii	Coast Goldenbush	5
Jaumea carnosa	Jaumea	5
Juncus acutus	Spiny Rush	2
Leymus condensatus	Giant Wild Rye	2
Lupinus arboreus	Bush Lupine	6
Lupinus bicolor	Annual Lupine	2
Malacothrix saxatilis var saxatilis**	Beach Aster	5
Malacothrix saxatilis var tenuifolia	Short-Leafed Cliff Aster	5
Mimulus aurantiacus	Bush Monkeyflower	1
Nassella pulchra	Purple Needlegrass	2
Phacelia ramossisima	Rambling Phacelia	5
Scrophularia californica	California Figwort	2
Spergularia macrotheca	Large-flowered Sand Spurry	1

*** Sensitive Species*

Reference sites: Coal Oil Point; sandy soils with ocean breezes and salt spray; reference the Sand-Verbena-Beach Bursage Series in the Lagoon Management Plan

Southern-facing bluffs

Scientific Name	Common Name	% Cover
Atriplex californica	California Saltbush	---
Atriplex coulteri**	Coulter's Saltbush	---
Atriplex triangularis	Spearscale	---
Suada taxifolia	Woolly Sea-Blite	---

*** Sensitive Species*

This area also includes Coastal Bluff Sage species

Coastal Bluff Sage

Scientific Name	Common Name	% Cover
Ambrosia psylostachys	Western Ragweed	2
Artemisia californica	Coastal Sagebrush	3
Aster subululatus	Slender Aster	1
Baccharis pilularis	Coyote Brush	1
Camissonia cheiranthifolia	Beach Evening Primrose	2
Croton californicum	California Croton	18
Deinandra fasciculata	no common name	1
Deinandra increscens var incresce	no common name	1
Encelia californica	Coast Sunflower	4
Eriogonum parvifolium	Coast Buckwheat	28
Eriophyllum confertiflorum	Golden Yarrow	2
Gnaphalium californicum	Green Everlasting	1
Isocoma menziesii	Coast Goldenbush	3
Lotus scoparius	Deerweed	28
Lupinus arboreus	Bush Lupine	2
Lupinus bicolor	Annual Lupine	2
Mimulus aurantiacus	Bush Monkeyflower	1
Nassella pulchra	Purple Needlegrass	2
Scrophularia californica	California Figwort	2

Reference sites: More Mesa native area, other coastal sage scrub communities on sandy, well-drained soils

Plant List for Habitat Restoration Projects

Grassland

Scientific Name	Common Name	% Cover
Ambrosia psilostachya	Western Ragweed	2
Camissonia cheiranthifolia	Beach Evening Primrose	3
Castilleja densiflora	Owl's clover	2
Centromedia parryi ssp. australis	Southern Tarweed	1
Bare ground	for foraging	20
Eschscholzia calfornica ssp. marit	Californa poppy, Coastal var.	4
Hordeum brachyantherum califor	California Barley	2
Lupinus bicolor	Annual Lupine	3
Lupinus nanus	Sky Lupine	2
Lessingia filaginifolia	California Aster	3
Nassella pulchra	Purple Needlegrass	50
Poa secunda	Sandberg Bluegrass	5
Sisyrinchium bellum	Blue-eyed Grass	2
Zeltnera muehlenbergii	Monterey Centaury	1

Oak Woodland

Scientific Name	Common Name	% Cover
Bromus carinatus	California Brome	25
Chenopodium californicum	California Goosefoot	2
Clematis ligusticifolia	Virgin's bower	2
Galium nuttallii	Santa Barbara bedstraw	2
Heteromeles arbutifolia	Toyon	5
Keckiella cordifolia	Climbing Penstemon	8
Lonicera subspicata	Santa Barbara Honeysuckle	8
Marah microcarpus	Wild Cucumber	2
Melica imperfecta	Coast Melic Grass	5
Mimulus aurantiacus	Bush Monkeyflower	5
Pholistoma auritium var. auritium	Fiesta Flower	5
Ribes speciosum	Fuchsia-flowered Gooseberry	2
Rhamnus californica	Coffeeberry	5
Rhamnus crocea	Redberry	2
Salvia spathacea	Hummingbird Sage	10
Sambucus mexicana	Elderberry	5
Scrophularia californica	California Figwort	5
Solanum douglasii	Douglas' Nightshade	2
Stachys ajugoides	Common wood mint	2
Stachys bullata	Hedge Nettle	2
Toxicodendron diversilobum	Poison Oak	<5
Verbena lasiostachys	Weedy Verbena	8
Quercus agrifolia	Coast Live Oak	80

Reference sites: back slopes of More Mesa & Douglas preserve. Soils are sandy loams that currently support trees and large shrubs.

Plant List for Habitat Restoration Projects

Vernal Pool - Sandy Slopes

Scientific Name	Common Name	% Cover
(Lower Edge)		
Atriplex californica	California Saltbush	10
Eschscholzia californica	California Poppy	15
Hordeum brachyantherum ssp. br	Meadow Barley	20
Horderum depressum	Alkali Barley	3
Lupinus bicolor	Annual Lupine	8
Nassella pulchra	Purple Needlegrass	20
Nassella cernua	Nodding Needlegrass	5
Sisyrinchium bellum	Blue-eyed Grass	10
Spergularia macrotheca	Large Flowered Sand Spurry	5
(Upper Edge)		
Artemisia californica	Coastal Sagebrush	3
Asclepias fascicularis	Narrow-leaf Milkweed	3
Centromedia parryi ssp. australis	Southern Tarweed	5
Corethrogyne filaginifolia	California Aster	5
Deinandra fasciculata	no comon name	7
Encelia californica	California Sunflower	10
Eriogonum parvifolium	Coast Buckwheat	10
Eriophyllum confertiflorum	Golden Yarrow	10
Isocoma menziesii	Coast Goldenbush	7
Leymus triticoides	Alkali Rye	7
Lotus scoparius	Deerweed	12
Lupinus succulentus	Succulent Lupine	5
Malacothrix saxatilis ssp. saxatilis	Cliff Aster	7
Mimulus aurantiacus	Monkeyflower	3
Stachys ajugoides	Ajuga Woodmint	5
Verbena lasiostachys	Weedy Verbena	5

Vernal Pool (max 8-10 inches deep)

Scientific Name	Common Name	% Cover
Alopecurus saccatus	Pacific Meadow Foxtail	3
Anemopsis californica	Yerba Mansa	5
Crassula aquatica	Water Pygmy Weed	2
Elatine brachysperma	Short Seeded Waterwort	1
Elocharis acicularis	Needle Spikerush	10
Eleocharis macrostachya	Spikerush	18
Eryngium armatum	Coastal Eryngo	10
Eryngium vaseyi	Coyote Thistle	20
Juncus bufonius	Toad Rush	7
Phalaris lemmonii	Lemmon's Canary Grass	5
Plagioborthrys undulates	Coastal Allocarya	10
Plantago elongata	Coastal Plantain	3
Psilocarphus brevissiumus	Dwarf Wooly Heads	15

Plant List for Habitat Restoration Projects

Torrey Pines

Scientific Name	Common Name	% Cover
Pinus torreyana	Torrey Pine	--
Leymus triticoides	Creeping Wild Rye	understory

Cypress

Scientific Name	Common Name	% Cover
Cupressus macrocarpa	Monterey Cypress	--
Leymus triticoides	Creeping Wild Rye	understory

APPENDIX C

Comment Letters and Responses

CALIFORNIA COASTAL COMMISSION
OUTH CENTRAL COAST AREA
SOUTH CALIFORNIA ST., SUITE 200
ENTURA, CA 93001
05) 585-1800

July 24, 2008

Shari Hammond
UCSB Campus Planning and Design
Santa Barbara, CA 93106-1030

RE: Draft Initial Study and Mitigated Negative Declaration for Lagoon Management Project

Dear Ms. Hammond,

Thank you for providing Commission staff with an opportunity to comment on the Draft Initial Study/ Mitigated Negative Declaration (IS/MND) for the Lagoon Restoration Project at Campus Lagoon. The proposed project would involve restoration activities in three sites adjacent to Campus Lagoon including an area near San Nicholas Hall, Lagoon Island, and Campus Point. Proposed activities include habitat restoration and enhancement and public access, infrastructure, safety, and educational improvements.

The following comments outline our preliminary concerns with the IS/MND with regard to consistency with the Coastal Act, the 1990 LRDP, as amended, and the approved Campus Lagoon Management Plan, dated August 1996.

1. **San Nicholas.** The proposed work adjacent to San Nicholas Hall includes the construction of 2 detention basins, use of the excavated material to raise the existing access roadway, and creation of additional shallow water foraging habitat on the lagoon side of the existing salt marsh island within the Lagoon. Furthermore, the proposed work would result in the removal of a narrow strip of salt marsh habitat between the lagoon and the access road.

   Section 30240 of the Coastal Act states that "[e]nvironmentally sensitive habitat areas shall be protected against any significant disruption of habitat values and only uses dependent on those resources shall be allowed within those areas." Furthermore, Section 30233 of the Coastal Act states that the "diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted...where there is no feasible less environmentally damaging alternative and where feasible mitigation measures have been provided to minimize adverse environmental effects...."

   In order to ensure that the proposed work adjacent to San Nicholas Hall is consistent with these provisions of the Coastal Act, the Final MND (FMND) should include an explanation of the habitat impacts associated with the construction of the detention basins and the placement of fill material in the lagoon to create shallow water foraging habitat for birds. The FMND should also describe the area of salt marsh habitat that would be destroyed and outline specific mitigation measures to offset this impact.

Additionally, Policy 30230.16 of the University's Long-Range Development Plan, as amended in 2006, states that "[t]he minimum buffers and setbacks from streams (top of bank), riparian corridors (edge of canopy), or wetlands, shall be 100 feet ...." This policy further states that "[n]o development...shall occur within buffer areas except for the following: habitat restoration; construction of water quality management facilities, erosion control management; public access trails and associated appurtenances; existing easements for roads, trails, and utilities; or flood control or sediment management activities...only when no other less environmentally damaging alternative exists...."

It appears that the staircase and ramp, which are not proposed as part of this project but are planned in the 2025 LRDP, would be within 100 feet of lagoon wetlands and that this development would be inconsistent with Policy 30230.16 as it does not qualify as one of the allowable uses within buffer areas. Staff recommends that this component of the 2025 LRDP be eliminated.

2. **Campus Point.** The proposed work at Campus Point includes restoration of 6.8 acres of non-native grasses and iceplant with native coastal scrub species, the creation of a back dune swale, and the installation of a stairway. The FMND should explain any habitat impacts associated with constructing the back dune swale and should describe the ecological benefits of this feature above the current conditions at the site.

3. **Lagoon Island.** The work proposed on Lagoon Island includes restoration of 14 acres of annual grassland, iceplant, and exotic shrub species with native vegetation and the installation of a labyrinth for public use. Lagoon Island has been designated as an environmentally sensitive habitat area (ESHA) in the Campus Lagoon Management Plan. Given that Lagoon Island has been designated as ESHA and the installation of a labyrinth is not a resource-dependent use, this component of the project is not consistent with Section 30240 of the Coastal Act. The FMND should delete this feature from the proposed project. Additionally, restoration of Lagoon Island should give consideration to restoring the historic rookery.

4. **Tree Removal.** Page 7 of the IS/MND indicates that six trees would be removed as part of the proposed project. The University should indicate where these trees are located and should provide current (less than one year) surveys of these trees to ensure that their removal would not impact nesting bird species. Additionally, the San Nicholas mitigation measure BIO-2 should be revised to state, "Weekly pre-construction surveys shall be conducted within 30 days of ground disturbance (associated with construction or grading) and within 30 days of any tree trimming and removal...."

5. **Additional Comments.** The Draft IS/MND contains several references to Main Campus Infrastructure Renewal Project. Please note that the Commission does not have any record of this project being previously submitted as a proposed amendment to the LRDP, nor has it been certified by the Commission as part of the LRDP. Therefore, any work proposed as part of this project must be submitted for

approval through a Notice of Impending Development, if appropriate, or through an amendment to the certified LRDP.

Thank you for giving Commission staff an opportunity to comment on the Draft IS/MND for the Lagoon Restoration Project. If you have any questions, please do not hesitate to contact me at (805) 585-1800.

Sincerely,

Jennifer F. Feinberg

Jenn Feinberg
Coastal Program Analyst

UNIVERSITY OF CALIFORNIA, SANTA BARBARA UCSB

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OFFICE OF CAMPUS PLANNING AND DESIGN
FACILITIES MANAGEMENT
SANTA BARBARA, CALFORNIA 93106-1030
Tel: (805) 893-3796
Fax: (805) 893-3870

November 5, 2008

Ms. Shana Gray
California Coastal Commission
89 South California Street, Suite 200
Ventura, CA 93001

Re: Final Mitigated Negative Declaration Lagoon Restoration Project, University of California, Santa Barbara

Dear Ms. Gray:

Thank you for your comments on the Draft Mitigated Negative Declaration (MND) for the Lagoon Restoration Project. Former Coastal Commission (CC) Staff Jennifer Feinberg sent the comment letter on July 24, 2008 and the letter is attached for your reference. The following are responses to Ms. Feinberg's comments.

San Nicolas

The proposed detention basins – freshwater wetlands – will replace very poor quality habitat dominated by Kikuyu grass, English Ivy and Caster Bean. These basins are being created to provide wildlife and native plants access to freshwater resources generated from seeps and storm drain run-off. There will be no impacts to native habitats associated with the creation of these basins.

No fill would be placed in the Lagoon to create shallow water foraging areas and no salt marsh habitat would be destroyed. The salt marsh and shallow foraging area that would be created is proposed for a wide portion of the access road that is currently unvegetated. The three-foot-wide saltmarsh area along the lagoon edge of the road will be retained as an island while the road will be excavated to create a shallow bird foraging area with a second salt marsh creation area along its shore. Two water ways approximately 4 by 3 feet will create an island effect along the current salt marsh edge. The overall effect will be to slightly enlarge the Lagoon and the saltmarsh habitat while removing more of it from human disturbance by a buffer of shallow water. The shorebird foraging area would be extended on the south side of this island by 2 to 4 feet over a length of about 20 feet to create a greater diversity in habitat types along this region of the shoreline. Ninety percent of the Lagoon shoreline drops off precipitously from the water's edge.

The staircase and ramp are not proposed as part of the project and was shown in the MND to disclose future plans for the project area. Response to comments on the 2025 LRDP will be provided in the Final 2008 LRDP Environmental Impact Report.

Campus Point

Campus Point restoration includes a proposal to create a back dune swale feature which would take advantage of the clay subsoil on the site to retain freshwater on this isolated mesa. Freshwater greatly enhances habitat quality for reptiles and birds as well as insects which has the effect of supporting a higher potential biodiversity. The Campus Lagoon ranges in salinity between 18 and 35 parts per thousand which is too saline to provide freshwater

resources for these organisms. The creation of this habitat feature would disturb an iceplant dominated flat mesa and replace 15,000 square feet of asphalt with coastal dune and sage scrub plant communities. All soil would be retained on site and the previously graded, flat mesa top would be restored to more historic variable topography which would create a significantly higher diversity in potential plant communities. Diversity in this area would increase from a weed dominated habitat: Iceplant (*Carpobrotus edulis*), annual grasses (*Bromus diandrus*) with a few scattered natives (*Baccharis pilularis* and *Lupinus arboreus*) to a habitat which would support at least twenty native species adapted to these sandy, bluff top conditions.

Lagoon Island

While the entire Lagoon Management Plan Area is designated as Environmentally Sensitive Habitat there are many parts of Lagoon Island where the habitats are degraded. There are many non-native plants and the area is braided with informal paths from extensive use by pedestrians and joggers. The proposed labyrinth would be beneficial to coastal resources with the removal of approximately 10,000 square feet of non-native invasive plants that are currently detrimental to the ESHA and restoring approximately 30,000 square feet of area with native vegetation. The project would also provide a passive recreational use to the area thereby enhancing coastal access opportunities. The labyrinth project is consistent with the goals of coastal resource protection and with the intent of the Lagoon Management Plan.

Tree removal

The Cheadle Center for Biodiversity and Ecological Restoration (CCBER) conducts monthly bird surveys of the whole campus lagoon area, including the portions of Lagoon Island where trees may be removed or killed in place. Since bird surveys are so frequent, impacts to nesting bird species will be avoided at the time of tree removal. Two patches of saplings of Eucalyptus trees will be removed from the west side and the northwest point of Lagoon Island when the restoration of the mesa top reaches that point. These trees responded with vigorous re-sprouting to the 1997 fire on Lagoon Island and only the center tree in each patch is large and would be maintained. A tree removal location map is attached.

Additional Comments

The Main Campus Infrastructure Renewal Project Final MND was certified in November 2007. A Notice of Impending Development for this project will be submitted to the Coastal Commission for review in Fall 2008. The proposed project is described in the Lagoon Restoration Project MND because the work proposed at the San Nicolas project area would be integrated with that project if approved by the Coastal Commission. Work at the San Nicolas site would not take place until after Coastal Commission approval of both the Lagoon Restoration Project and the Infrastructure Renewal project. A Final MND is attached for your files. If you have any questions or further comments, please telephone me at (805) 893-3796 or e-mail: shari.hammond@planning.ucsb.edu.

Sincerely,

Shari Hammond
Senior Planner

Attachments: As stated.

cc: Tye Simpson, Director, Campus Planning and Design
Lisa Stratton, Restoration Manager, CCBER

Trees to be removed:

1 – 1 large Euc to be replaced with sycamore and cottonwood

2 – two small olive and Acacia longifolia to be removed

3 & 4. Saplings of Eucalyptus to be removed as a mgmt practice.

5. Two pink bottle brush shrubs to be removed.

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

July 14, 2008

Shari Hammond
University of California, Santa Barbara
Campus Planning and Design 1030
Santa Barbara, CA 93106

RE: SCH#2008061145 Lagoon Restoration Project; Santa Barbara County.

Dear Ms. Hammond:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Completion (NOC) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5 minute quadrangle name, township, range and section required.**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,
Katy Sanchez
Program Analyst

CC: State Clearinghouse

Native American Contacts
Santa Barbara County
July 14, 2008

Ernestine DeSoto
1027 Cacique Street, #A
Santa Barbara , CA 93103
(805) 962-3598
Chumash

Patrick Tumamait
992 El Camino Corto
Ojai , CA 93023
(805) 640-0481
(805) 216-1253 Cell
Chumash

Owl Clan
Dr. Kote & Lin A-Lul'Koy Lotah
48825 Sapaque Road
Bradley , CA 93426
(805) 472-9536
Chumash

John Ruiz
1826 Stanwood Drive
Santa Barbara , CA 93103
(805) 965-8983
Chumash

Santa Ynez Band of Mission Indians
Vincent Armenta, Chairperson
P.O. Box 517
Santa Ynez , CA 93460
varmenta@santaynezchumash.org
(805) 688-7997
(805) 686-9578 Fax
Chumash

Diane Napoleone and Associates
Diane Napoleone
6997 Vista del Rincon
La Conchita , CA 93001
dnaassociates@sbcglobal.net
Chumash

Julie Lynn Tumamait
365 North Poli Ave
Ojai , CA 93023
jtumamait@sbcglobal.net
(805) 646-6214
Chumash

Santa Ynez Tribal Elders Council
Adelina Alva-Padilla, Chair Woman
P.O. Box 365
Santa Ynez , CA 93460
elders@santaynezchumash.org
(805) 688-8446
(805) 693-1768 FAX
Chumash

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH# 2008061145 Lagoon Restoration Project; Santa Barbara County.

Native American Contacts

Santa Barbara County

July 14, 2008

Coastal Band of the Chumash Nation
Janet Garcia,Chairperson
P.O. Box 4464 Chumash
Santa Barbara , CA 93140
805-964-3447

Santa Ynez Band of Mission Indians
Sam Cohen, Tribal Administrator
P.O. Box 517 Chumash
Santa Ynez , CA 93460
(805) 688-7997
(805) 686-9578 Fax

Carol A. Pulido
165 Mountainview Street Chumash
Oak View , CA 93022
805-649-2743 (Home)

This list is current only as of the date of this document.

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This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH# 2008061145 Lagoon Restoration Project; Santa Barbara County.

UNIVERSITY OF CALIFORNIA, SANTA BARBARA UCSB

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

OFFICE OF CAMPUS PLANNING AND DESIGN
FACILITIES MANAGEMENT
SANTA BARBARA, CALFORNIA 93106-1030
Tel: (805) 893-3796
Fax: (805) 893-3870

October 3, 2008

Katy Sanchez
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Re: Response to Comments on Lagoon Restoration Project Draft Initial Study/Mitigated Negative Declaration, University of California, Santa Barbara

Dear Ms. Sanchez:

Thank you for your comments on the Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Lagoon Restoration Project.

There are known or suspected archeological resources in the proposed Campus Point project area. In addition to the mitigation measures in the IS/MND requiring monitoring and reports, the University of California, Santa Barbara has several policies in its Long Range Development Plan (LRDP) to protect Campus archeological resources. LRDP Policy 30244.5 will be followed in the event archeological resources are encountered during project construction.

In accordance with LRDP Policy 30244.5, Should archaeological or paleontological resources be disclosed during any planning, pre-construction, or construction phase of the Project, all activity which could damage or destroy these resources shall be temporarily suspended until the site has been examined by a non-University archeologist recognized by the State Office of Historic Preservation. Mitigation measures shall be developed and implemented to address the impacts of the Project on archeological resources.

Please do not hesitate to contact me with any questions or comments at (805) 893-3796 or by e-mail at shari.hammond@planning.ucsb.edu.

Sincerely,

Shari Hammond

Shari Hammond
Senior Planner

cc: Tye Simpson, Campus Planning and Design
Lisa Stratton, Cheadle Center for Biodiversity and Ecological Restoration